
Section 18

Natural Resources

This section presents data on the area, ownership, production, trade, reserves, and disposition of natural resources. Natural resources is defined here as including forestry, fisheries, and mining and mineral products.

Forestry—Presents data on the area, ownership, and timber resource of commercial timberland; forestry statistics covering the National Forests and Forest Service cooperative programs; product data for lumber, pulpwood, woodpulp, paper and paperboard, and similar data.

The principal sources of data relating to forests and forest products are *Forest Resources of the United States, 1991; Timber Demand and Technology Assessment, 2001; U.S. Timber Production, Trade, Consumption, and Price Statistics; Land Areas of the National Forest System*, issued annually by the Forest Service of the Department of Agriculture; *Agricultural Statistics* issued by the Department of Agriculture; and reports of the annual survey of manufactures, and the annual *Current Industrial Reports*, issued by the Census Bureau on the Internet and in print in the annual *Manufacturing Profiles*. Additional information is published in the monthly *Survey of Current Business* of the Bureau of Economic Analysis, and the annual *Wood Pulp and Fiber Statistics* and *The Statistics of Paper, Paperboard, and Wood Pulp* of the American Forest and Paper Association, Washington, DC.

The completeness and reliability of statistics on forests and forest products vary considerably. The data for forest land area and stand volumes are much more reliable for areas that have been recently surveyed than for those for which only estimates are available. In general, more data are available for lumber and other manufactured products such as particle board and softwood panels, etc., than for the primary forest products such as poles and piling and fuelwood.

Fisheries—The principal source of data relating to fisheries is *Fisheries of the United States*, issued annually by the National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA). The NMFS collects and disseminates data on commercial landings of fish and shellfish. Annual reports include quantity and value of commercial landings of fish and shellfish disposition of landings and number and kinds of fishing vessels and fishing gear. Reports for the fish-processing industry include annual output for the wholesaling and fish processing establishments, annual and seasonal employment. The principal source for these data is the annual *Fisheries of the United States*.

Mining and mineral products—Presents data relating to mineral industries and their products, general summary measures of production and employment, and more detailed data on production, prices, imports and exports, consumption, and distribution for specific industries and products. Data on mining and mineral products may also be found in Sections 19, 21, and 28 of this *Abstract*; data on mining employment may be found in Section 12.

Mining comprises the extraction of minerals occurring naturally (coal, ores, crude petroleum, natural gas) and quarrying, well operation, milling, refining and processing, and other preparation customarily done at the mine or well site or as a part of extraction activity. (Mineral preparation plants are usually operated together with mines or quarries.) Exploration for minerals is included as is the development of mineral properties.

The principal governmental sources of these data are the *Minerals Yearbook* and *Mineral Commodity Summaries*, published by the U.S. Geological Survey, Department of the Interior, and various monthly and annual publications of the Energy Information Administration, Department of

Energy. See text, Section 19, for a list of Department of Energy publications. In addition, the Census Bureau conducts a census of mineral industries every 5 years.

Nongovernment sources include the *Annual Statistical Report* of the American Iron and Steel Institute, Washington, DC; *Metals Week* and the monthly *Engineering and Mining Journal*, issued by the McGraw-Hill Publishing Co., New York, NY; *The Iron Age*, issued weekly by the Chilton Co., Philadelphia, PA; and the *Joint Association Survey of the U.S. Oil and Gas Industry*, conducted jointly by the American Petroleum Institute, Independent Petroleum Association of America, and Mid-Continent Oil and Gas Association.

Mineral statistics, with principal emphasis on commodity detail, have been collected by the U.S. Geological Survey and the former Bureau of Mines since 1880. Current data in U.S. Geological Survey publications include quantity and value of non-fuel minerals produced, sold or used by producers, or shipped; quantity of minerals stocked; crude materials treated and prepared minerals recovered; and consumption of mineral raw materials.

Censuses of mineral industries have been conducted by the Census Bureau at various intervals since 1840. Beginning with the 1967 census, legislation provides for a census to be conducted every 5 years for years ending in "2" and "7." The most recent results, published for 2002, are based on the North American Industry Classification System (NAICS). The censuses provide, for the various types of mineral establishments, information on operating costs, capital expenditures, labor, equipment, and energy requirements in relation to their value of shipments and other receipts. Commodity statistics on many manufactured mineral products are also collected by the Census Bureau at monthly, quarterly, or annual intervals and issued in its *Current Industrial Reports* series.

In general, figures shown in the individual commodity tables include data for outlying areas and may therefore not agree with summary tables. Except for crude petroleum and refined products, the export and import figures include foreign trade passing through the customs districts of United States and Puerto Rico but exclude shipments between U.S. territories and the customs districts.

No. 841. Natural Resource-Related Industries—Employees, Annual Payroll, and Establishments by Industry: 1999 to 2001

[Excludes government employees, railroad employees, self-employed persons, etc. See "General Explanation" in source for definitions and statement on reliability of data. An establishment is a single physical location where business is conducted or where services or industrial operations are performed.]

Industry	NAICS code ¹	1999			2000			2001			Establishment by employment size-class (1,000)																				
		Number of employees ² (1,000)	Annual payroll (bil. dol.)	Average payroll per employee (dol.)	Number of employees ² (1,000)	Annual payroll (bil. dol.)	Average payroll per employee (dol.)	Number of employees ² (1,000)	Annual payroll (bil. dol.)	Average payroll per employee (dol.)	Total	Under 20 employees	20 to 99 employees	100 to 499 employees	500 and over employees																
											1,803.0	65.39	36,266	1,791.3	66.58	37,166	1,759.8	69.10	38,718	73,794	47,980	10,973	3,640	289							
Natural resource-related industries, total	(X)																														
Percent of all industries	(X)	1.63	1.19	112.95	1.57	1.72	109.28	1.53	1.73	111.68	1.04	0.79	1.31	2.32	1.50																
Forestry, fishing, hunting and agriculture support	11	192.2	4.81	25,046	183.6	4.68	25,509	183.5	4.79	26,117	26,447	24,813	1,467	159	8																
Forestry and logging	113	83.8	2.26	26,916	83.1	2.26	27,137	78.0	2.16	27,722	12,795	31,445	626	26	-																
Timber tract operations	1131	3.3	0.12	37,422	3.3	0.13	39,563	3.2	0.13	38,399	441	368	29	4	-																
Forest nurseries & gathering forest products	1132	1.4	0.05	35,954	1.7	0.07	39,933	2.0	0.07	34,196	256	227	28	1	-																
Logging	1133	79.2	2.08	26,326	78.1	2.06	26,331	72.7	1.96	27,069	12,098	11,508	569	21																	
Fishing, hunting & trapping	114	10.0	0.33	33,302	10.0	0.34	34,287	9.9	0.34	34,249	2,636	2,551	72	12	1																
Fishing	1141	7.6	0.26	34,645	7.5	0.27	35,669	7.3	0.26	35,179	2,252	2,183	59	10																	
Hunting & trapping	1142	2.4	0.07	28,998	2.5	0.08	30,173	2.6	0.08	31,625	384	368	13	2	1																
Agriculture & forestry support activities	115	98.3	2.22	22,613	90.4	2.08	23,043	95.5	2.29	23,960	11,016	10,119	769	121	7																
Crop production support activities	1151	67.4	1.58	23,386	57.6	1.35	23,400	59.6	1.46	24,553	5,464	4,880	491	89	4																
Animal production support activities	1152	16.7	0.33	19,507	18.2	0.38	21,086	20.1	0.45	21,798	3,999	3,820	165	13	1																
Forestry support activities	1153	14.1	0.32	22,603	14.7	0.35	24,067	15.2	0.37	24,587	1,553	1,419	113	19	2																
Mining	21	456.6	20.98	45,935	456.1	22.09	48,432	485.6	25.01	51,516	24,319	9,823	3,628	748	95																
Oil & gas extraction	211	90.0	5.38	59,742	83.0	5.39	64,967	87.9	6.21	70,673	7,691	6,862	687	130	12																
Oil & gas extraction	2111	90.0	5.38	59,742	83.0	5.39	64,967	87.9	6.21	70,673	7,691	6,862	687	130	12																
Mining (except oil & gas)	212	215.9	9.63	44,572	204.3	9.34	45,731	200.7	9.58	47,743	7,323	5,276	1,680	326	41																
Coal mining	2121	76.4	3.70	48,413	70.7	3.54	50,125	71.9	3.78	53,327	1,266	692	392	164	18																
Metal ore mining	2122	39.9	1.84	46,206	34.8	1.72	49,353	32.8	1.65	50,290	484	375	375	44	19																
Nonmetallic mineral mining & quarrying	2123	99.6	4.08	40,972	98.8	4.08	41,313	97.9	4.14	42,791	5,572	4,209	4,209	115	4																
Mining support activities	213	150.7	5.97	39,641	168.8	7.35	43,570	196.8	9.21	46,802	9,305	7,710	1,244	342	42																
Mining support activities	2131	150.7	5.97	39,641	168.8	7.35	43,570	196.8	9.21	46,802	9,305	7,710	1,244	342	42																
Timber-related manufacturing	(X)	1,154.2	39.60	34,309	1,151.6	39.80	34,562	1,090.7	39.30	35,141	23,028	13,344	5,878	2,733	186																
Wood product manufacturing	321	595.2	16.37	27,509	597.7	16.51	27,626	557.5	16.82	28,393	17,289	11,483	4,481	1,311	27																
Sawmills & wood preservation	3211	131.9	3.75	28,431	131.4	3.78	28,798	122.1	3.52	28,811	4,594	3,099	1,203	291	1																
Veneer, plywood & engineered wood product manufacturing	3212	117.5	3.63	30,846	120.6	3.75	31,098	116.4	3.70	31,744	1,944	811	774	348	11																
Other wood product manufacturing	3219	345.7	9.00	26,023	345.8	8.95	25,882	318.8	8.61	27,009	10,751	7,531	2,504	672	44																
Paper manufacturing	322	559.0	23.23	41,549	553.9	23.29	42,046	533.2	22.50	42,196	5,739	1,861	1,397	1,422	159																
Pulp, paper & paperboard mills	3221	185.2	9.74	52,607	177.1	9.48	53,490	170.0	9.20	54,080	606	91	166	234	115																
Converted paper product manufacturing	3222	373.8	13.48	36,071	376.8	13.82	36,666	363.2	13.30	36,632	5,133	1,770	2,131	1,188	44																

¹ Represents zero. X Not applicable. ² North American Industry Classification System, 1997. ² Covers full- and part-time employees who are on the payroll in the pay period including March 12.

Source: U.S. Census Bureau, County Business Patterns: 2000, Series CBP/00-1. See also <http://www.census.gov/prod/2003pubs/01cbp/cbp01-1.pdf> (issued April 2003).

No. 842. Natural Resource-Related Industries—Establishments, Sales, Payroll and Employees by Industry: 1997 and 2002

[174 represents \$174,000,000,000. Includes only establishments of firms with payroll. See Appendix III.]

Industry	NAICS code ¹	1997				2002 ²			
		Sales, receipts, revenue, or shipments (bil. dol.)	Annual payroll (bil. dol.)	Paid employees (1,000)	Sales, receipts, revenue, or shipments (bil. dol.)	Annual payroll (bil. dol.)	Paid employees (1,000)		
Mining	21	25,000	174	21	509	(S)	(S)	(S)	(S)
Oil & gas extraction	211	8,312	103	6	111	7,514	107	5	100
Mining (except oil & gas)	212	7,348	51	9	229	7,173	54	9	200
Support activities	213	9,340	20	6	169	S	S	S	S
Manufacturing ³	31-33	362,829	3,835	570	16,805	344,259	3,833	568	14,543
Wood product manufacturing	321	17,367	88	14	570	16,912	89	16	535
Paper manufacturing	322	5,868	150	22	574	5,463	151	21	476
Petroleum & coal products manufacturing	324	2,146	177	6	108	2,278	212	6	106

¹ Figure does not meet publication standards. ² North American Industry Classification System, 1997. ³ Preliminary data.

³ Includes industry not shown separately.

Source: U.S. Census Bureau, 2002 Economic Census, Advance Comparative Statistics for the United States 1997 NAICS Basis. See also <<http://www.census.gov/econ/census02/>>.

No. 843. Gross Domestic Product of Natural Resource-Related Industries in Current and Real (1996) Dollars by Industry: 1990 to 2001

[In billions of dollars (5,803.2 represents \$5,803,200,000,000). Data are based on the 1987 SIC. Data include nonfactor charges (capital consumption allowances, indirect business taxes, etc.) as well as factor charges against gross product; corporate profits and capital consumption allowances have been shifted from a company to an establishment basis]

Industry	Current dollars				Chained (1996) dollars			
	1990	1995	2000	2001	1990	1995	2000	2001
All industries, total	5,803.2	7,400.5	9,824.6	10,082.2	6,707.9	7,543.8	9,191.4	9,214.5
Industries covered	297.3	306.7	369.7	374.8	321.9	329.9	363.6	359.4
Percent of all industries	5.12	4.14	3.76	3.72	4.80	4.37	3.96	3.90
Agriculture, forestry, and fishing	108.3	109.8	134.3	140.7	118.5	123.1	166.7	163.9
Farms	79.6	73.2	77.8	80.6	84.2	85.5	120.5	114.3
Agricultural services	28.7	36.7	56.5	60.1	34.6	37.6	47.6	49.1
Mining	111.9	95.7	133.1	139.0	105.8	113.0	101.9	106.8
Metal mining	5.2	6.5	5.2	5.7	4.4	5.5	8.0	9.6
Coal mining	11.8	10.7	9.2	10.5	7.5	10.1	11.9	13.9
Oil and gas extraction	87.1	69.3	106.5	110.3	87.5	88.6	70.5	72.9
Nonmetallic minerals, except fuels	7.8	9.1	12.2	12.6	8.1	9.1	12.2	12.4
Timber-related manufacturing	77.2	101.3	102.3	95.1	97.6	93.8	94.9	88.7
Lumber and wood products	32.2	42.3	42.1	39.2	45.1	41.6	41.8	39.0
Paper and allied products	45.0	58.9	60.2	55.9	52.5	52.2	53.1	49.7

Source: U.S. Bureau of Economic Analysis, *National Income and Product Accounts, 1929-97*; and *Survey of Current Business*, November 2002. See also <<http://www.bea.doc.gov/bea/ARTICLES/2002/11November/1102GDPbyIndustry.pdf>> (released 28 October 2002).

No. 844. National Forest System Land—State and Other Areas: 2003

[In thousands of acres (232,332 represents 232,332,000). As of Sept. 30.]

State and other area	Gross area within unit boundaries ¹	National Forest System Land ²	State and other area	Gross area within unit boundaries ¹	National Forest System Land ²	State and other area	Gross area within unit boundaries ¹	National Forest System Land ²
Total . . .	232,332	192,511	KS	116	108	OH	834	236
U.S.	232,277	192,483	KY	2,208	809	OK	772	400
AL	1,288	666	LA	1,025	605	OR	17,503	15,666
AK	24,356	21,981	ME	93	53	PA	743	513
AZ	11,891	11,262	MD	-	-	RI	-	-
AR	3,451	2,592	MA	-	-	SC	1,379	617
CA	24,430	20,741	MI	4,894	2,865	SD	2,369	2,013
CO	16,015	14,487	MN	5,467	2,840	TN	1,276	701
CT	-	-	MS	2,317	1,171	TX	1,994	755
DE	-	-	MO	3,060	1,487	UT	9,196	8,180
DC	-	-	MT	19,117	16,923	VT	817	389
FL	1,434	1,153	NE	442	352	VA	3,223	1,662
GA	1,857	865	NV	6,275	5,835	WA	10,113	9,273
HI	-	-	NH	828	732	WV	1,869	1,034
ID	21,652	20,465	NJ	-	-	WI	2,023	1,526
IL	857	293	NM	10,455	9,418	WY	9,703	9,238
IN	644	200	NY	16	16	PR	56	28
IA	-	-	NC	3,165	1,252	VI	-	-
				1,106	1,106			

¹ Represents zero or rounds to zero. ² Comprises all publicly and privately owned land within authorized boundaries of national forests, purchase units, national grasslands, land utilization projects, research and experimental areas, and other areas.

² Federally owned land within the "gross area within unit boundaries."

Source: U.S. Forest Service, *Land Areas of the National Forest System*, annual.

No. 845. Timber-Based Manufacturing Industries—Employees, Payroll, and Shipments: 2001

Selected industries	1997 NAICS code ¹	All employees			Value added by manufacturers			
		Payroll			Production workers, total (1,000)	Total (mil. dol.)	Per production worker (dol.)	Value of shipments (mil. dol.)
		Number (1,000)	Total (mil. dol.)	Per employee (dol.)				
Manufacturing, all industries	31-33	15,879	593,051	37,347	11,235	1,853,929	165,012	3,970,500
Timber-based manufacturing, total	321-322	1,086	37,619	34,636	867	106,166	122,495	243,096
Percent of total manufacturing	(X)	6.84	6.34	(X)	7.71	5.73	(X)	6.12
Wood product manufacturing	321	556	15,431	27,759	459	33,130	72,191	87,250
Sawmills & wood preservation	3211	124	3,481	27,978	106	7,484	70,853	25,924
Sawmills	321113	114	3,169	27,899	97	6,781	69,814	21,694
Wood preservation	321114	11	313	28,805	9	704	82,724	4,231
Veneer, plywood, & engineered wood product	3212	115	3,515	30,463	95	7,586	79,638	19,636
Other wood product	3219	316	8,435	26,685	258	18,060	69,990	41,689
Millwork	32191	146	4,167	28,559	119	9,166	76,752	22,149
Wood container & pallet	32192	49	1,097	22,324	41	2,169	52,756	4,687
All other wood product	32199	121	3,171	26,197	97	6,724	68,974	14,854
Paper	322	530	22,188	41,845	408	73,036	179,108	155,846
Pulp, paper, & paperboard mills	3221	171	9,179	53,783	134	37,279	277,782	71,987
Pulp mills	32211	7	414	57,419	6	1,413	253,647	3,239
Paper mills	32212	115	6,163	53,745	91	24,837	273,804	46,853
Paperboard mills	32213	49	2,601	53,335	38	11,029	290,842	21,896
Converted paper product	3222	360	13,010	36,180	274	35,757	130,703	83,859
Paperboard container	32221	205	7,483	36,502	157	17,534	111,575	45,817
Paper bag & coated & treated paper	32222	71	2,665	37,741	51	8,443	164,924	18,390
Stationery product	32223	45	1,452	32,175	35	3,485	100,021	8,075
Other converted paper product	32229	39	1,410	36,296	30	6,295	207,137	11,576

X Not applicable. ¹ North American Industry Classification System, 1997; see text, Section 15.

Source: U.S. Census Bureau, *Annual Survey of Manufactures, 2001*, Series M01(AS)-1. See also <<http://www.census.gov/prod/2003pubs/m01-as1.pdf>> (issued January 2003).

No. 846. Timber Products—Production, Foreign Trade, and Consumption by Type of Product: 1990 to 2003

[In millions of cubic feet, roundwood equivalent (15,577 represents 15,577,000,000)]

Type of product	1990	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Industrial roundwood:											
Domestic production	15,577	15,306	15,537	15,413	15,703	15,620	15,632	15,436	14,634	14,902	14,819
Softwoods	10,968	10,268	10,191	10,153	10,180	10,097	10,381	10,201	9,859	10,124	10,001
Hardwoods	4,609	5,038	5,347	5,260	5,523	5,523	5,251	5,235	4,775	4,778	4,817
Imports	3,091	3,632	3,907	3,885	4,008	4,157	4,370	4,529	4,605	4,505	4,954
Exports	2,307	2,139	2,282	2,264	2,290	1,951	1,964	1,996	1,759	1,769	1,698
Consumption ²	16,361	16,800	17,161	17,034	17,421	17,827	18,038	17,969	17,481	17,637	18,075
Softwoods	11,779	11,906	11,961	11,996	12,072	12,339	12,754	12,659	12,552	12,790	12,944
Hardwoods	4,582	4,894	5,200	5,038	5,349	5,488	5,284	5,310	4,929	4,847	5,131
Lumber:											
Domestic production	7,317	7,052	6,815	6,886	7,103	7,093	7,379	7,199	6,820	7,060	7,240
Imports	1,909	2,395	2,522	2,616	2,619	2,721	2,807	2,845	2,903	3,036	3,193
Exports	589	512	460	449	452	350	404	428	354	353	360
Consumption	8,637	8,935	8,877	9,053	9,270	9,463	9,782	9,616	9,369	9,744	10,073
Plywood and veneer:											
Domestic production	1,423	1,320	1,303	1,281	1,213	1,201	1,208	1,187	1,067	1,074	1,044
Imports	97	94	107	97	114	131	160	155	173	205	240
Exports	109	86	89	87	103	55	45	42	32	31	35
Consumption	1,410	1,328	1,321	1,291	1,224	1,277	1,323	1,300	1,208	1,249	1,249
Pulp products:											
Domestic production	5,313	5,576	6,079	5,908	6,097	6,114	5,813	5,881	5,691	5,708	5,706
Imports	1,038	1,102	1,248	1,144	1,249	1,269	1,355	1,459	1,458	1,180	1,437
Exports	646	758	905	891	929	818	768	842	801	810	793
Consumption	5,704	5,920	6,422	6,161	6,417	6,565	6,400	6,498	6,348	6,078	6,351
Logs:											
Imports	4	18	13	18	20	30	47	68	70	81	80
Exports	674	429	451	422	384	316	326	331	307	309	356
Pulpwood chips, exports	288	354	377	416	422	412	422	353	265	265	155
Fuelwood consumption	3,019	3,134	2,937	2,739	2,542	2,523	2,542	2,561	2,571	2,581	2,591

¹ Includes log exports. ² Includes log imports.

Source: U.S. Forest Service, *U.S. Timber Production, Trade, Consumption, and Price Statistics, 1965-1999*, Research Paper FPL-RP-595; and unpublished data. See also <<http://www.fpl.fs.fed.us/documents/fplrp/fplrp595.pdf>>.

No. 847. Selected Timber Products—Imports and Exports: 1990 to 2003

Product	Unit	1990	1995	1997	1998	1999	2000	2001	2002	2003
IMPORTS ¹										
Lumber, total ²	Mil. bd. ft.	13,063	17,524	18,237	19,012	19,576	19,906	20,443	21,434	21,981
From Canada	Percent	91.3	97.1	96.3	96.0	93.0	92.0	93.0	90.4	90.0
Logs, total	Mil. bd. ft. ³	23	80	128	185	294	435	452	525	497
From Canada	Percent	84	70	83	91	95	96	97	97	98
Paper and board ⁴	1,000 tons	12,195	14,292	14,525	14,538	16,917	17,555	18,513	19,433	20,034
Woodpulp	1,000 tons	4,893	5,969	6,398	5,984	6,660	7,227	7,348	7,247	6,691
Plywood	Mil. sq. ft. ⁵	1,687	1,951	2,111	2,429	2,987	2,917	3,246	3,868	4,489
EXPORTS										
Lumber, total ²	Mil. bd. ft.	4,614	2,958	2,933	2,189	2,549	2,700	2,190	2,186	2,193
To: Canada	Percent	14	22	24	26	26	26	26	27	29
Japan	Percent	28	33	27	16	14	12	10	7	7
Europe	Percent	15	17	20	26	21	19	18	16	16
Logs, total	Mil. bd. ft. ³	4,213	2,820	2,398	1,978	2,038	2,068	1,918	1,934	2,224
To: Canada	Percent	9	25	30	39	39	41	46	50	54
Japan	Percent	62	61	56	51	49	45	39	34	29
China	Percent	9	1	1	1	-	-	1	2	2
Paper and board ⁴	1,000 tons	5,163	7,621	10,368	9,103	9,477	10,003	11,504	11,564	11,868
Woodpulp	1,000 tons	5,905	8,261	6,990	6,025	5,936	6,409	6,167	6,254	5,847
Plywood	Mil. sq. ft. ⁵	1,766	1,517	1,802	970	797	754	580	563	640

- Represents zero. ¹ Customs value of imports; see text, Section 28. ² Includes railroad ties. ³ Log scale. ⁴ Includes paper and board products. Excludes hardboard. ⁵ 3/8 inch basis.

Source: U.S. Forest Service, *U.S. Timber Production, Trade, Consumption, and Price Statistics, 1965-1999*, Research Paper FPL-RP-595; and unpublished data. See also <<http://www.fpl.fs.fed.us/documents/fplrp/fplrp595.pdf>>.

No. 848. Lumber Consumption by Species Group and End Use: 1995 to 2003

[In million board feet (59.3 represents 59,300,000), except per capita in board feet. Per capita consumption based on estimated resident population as of July 1]

Item	1995	2000	2001	2002	2003	End-use	1995	2000	2001	2002	2003
Total	59.3	66.1	64.6	67.5	67.5	New housing	15.9	20.6	20.1	20.0	20.0
Per capita	225	240	227	235	232	Residential upkeep and improvements	14.3	16.4	17.0	17.3	17.5
Species group:						New nonresidential construction ¹	5.8	7.7	5.6	5.5	5.5
Softwoods . . .	47.6	54.0	53.7	56.4	56.2	Manufacturing	5.5	(NA)	(NA)	(NA)	8.1
Hardwoods . . .	11.7	12.2	11.0	11.1	11.3	Shipping	8.5	7.7	8.1	8	7.5
						Other ²	10.2	6.7	7.3	7.5	6.9

NA Not available. ¹ In addition to new construction, includes railroad ties laid as replacements in existing track and lumber used by railroads for railcar repair. ² Includes upkeep and improvement of nonresidential buildings and structures; made-at-home projects, such as furniture, boats, and picnic tables; made-on-the-job items such as advertising and display structures; and miscellaneous products and uses.

Source: U.S. Forest Service, *U.S. Timber Production, Trade Consumption, and Price Statistics, 1965-1999*, Research Paper FPL-RP-595. See also <<http://www.fpl.fs.fed.us/documents/fplrp/fplrp595.pdf>>.

No. 849. Selected Timber Products—Producer Price Indexes: 1990 to 2003

[1982=100. For information about producer prices, see text, Section 14, Prices]

Product	1990	1995	1997	1998	1999	2000	2001	2002	2003
INDEX									
Lumber and wood products	129.7	178.1	183.8	179.1	183.6	178.2	174.4	173.3	177.5
Lumber	124.6	173.4	194.5	179.5	188.2	178.8	171.6	170.6	174.8
Softwood lumber	123.8	178.5	206.5	182.7	196.0	178.6	170.1	170.8	171.1
Hardwood lumber	131.0	167.0	174.1	178.7	177.3	185.9	181.3	178.3	189.7
Millwork	130.4	163.8	170.9	171.1	174.7	176.4	179.2	179.8	181.8
General millwork	132.0	165.4	171.1	172.4	175.6	178.0	181.8	183.3	185.4
Prefabricated structural members	122.3	163.5	177.8	170.1	178.1	175.1	173.5	168.5	171.1
Plywood	114.2	165.3	159.3	157.3	176.4	157.6	154.3	151.7	166.9
Softwood plywood	119.6	188.1	175.5	174.9	207.0	173.3	167.8	164.1	195.6
Hardwood plywood and related products	102.7	122.2	127.1	126.9	128.6	130.2	130.4	131.5	129.0
Other wood products	114.7	143.7	128.4	135.2	131.1	130.5	130.5	127.2	129.9
Boxes	119.1	145.0	149.2	150.7	152.3	155.2	154.5	154.3	157.6
Pulp, paper, and allied products	141.2	172.2	167.9	171.7	174.1	183.7	184.8	185.9	190.0
Pulp, paper, and prod. ex bldg paper	132.9	163.4	144.7	147.0	147.9	161.4	157.7	155.3	157.1
Woodpulp	151.3	183.2	128.6	122.6	119.7	145.3	125.8	116.2	121.4
Wastepaper	138.9	371.1	163.3	145.4	183.6	282.5	148.6	173.1	197.2
Paper	128.8	159.0	143.9	145.4	141.8	149.8	150.6	144.7	146.1
Writing and printing papers	129.1	158.4	140.0	139.9	137.8	146.6	146.4	143.8	144.7
Newsprint	119.6	161.8	133.9	143.4	(NA)	127.5	138.6	105.7	111.8
Paperboard	135.7	183.1	144.4	151.6	153.2	176.7	172.1	164.3	162.7
Converted paper and paperboard products	135.2	157.0	148.4	152.2	153.5	162.7	164.5	163.8	165.3
Office supplies and accessories	121.4	134.9	131.0	131.2	129.5	133.8	136.9	135.7	137.5
Building paper & building board mill prods	112.2	144.9	129.6	132.9	141.6	138.8	129.3	129.3	159.7

NA Not available. ¹Includes other products not shown separately.

Source: U.S. Bureau of Labor Statistics, *Producer Price Indexes*, monthly.

No. 850. Selected Species—Stumpage Prices In Current and Constant (1996) Dollars: 1990 to 2003

[In dollars per 1,000 board feet. Stumpage prices are based on sales of sawtimber from National Forests]

Species	1990	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
CURRENT DOLLARS											
Softwoods:											
Douglas fir ¹	466	652	454	436	331	254	315	433	258	185	305
Southern pine ²	127	266	248	241	307	288	269	258	168	166	162
Sugar pine ³	285	625	397	318	234	200	229	187	192	209	54
Ponderosa pine ^{3 4}	218	291	150	274	270	205	181	155	143	118	35
Western hemlock ⁵	203	335	297	248	211	161	96	46	34	73	104
Hardwoods:											
All eastern hardwoods ⁶	146	352	309	259	287	241	195	341	264	384	279
Oak, white, red, and black ⁶	188	317	297	237	265	270	317	258	153	207	236
Maple, sugar ⁷	135	313	286	238	357	395	448	314	271	485	586
CONSTANT (1996) DOLLARS ⁸											
Softwoods:											
Douglas fir ¹	428	598	417	436	304	233	289	397	237	170	279
Southern pine ²	117	244	228	241	282	264	247	237	154	153	148
Sugar pine ³	262	574	364	318	215	183	210	172	176	191	49
Ponderosa pine ^{3 4}	200	267	138	274	248	188	166	142	131	108	32
Western hemlock ⁵	186	307	272	248	194	148	88	42	31	67	95
Hardwoods:											
All eastern hardwoods ⁶	134	323	283	259	263	221	179	313	242	353	256
Oak, white, red, and black ⁶	172	291	272	237	243	248	291	237	140	190	216
Maple, sugar ⁷	124	287	262	238	328	362	411	288	249	445	538

¹ Western Washington and western Oregon. ² Southern region. ³ Pacific Southwest region (formerly California region). ⁴ Includes Jeffrey pine. ⁵ Pacific Northwest region. ⁶ Eastern and Southern regions. ⁷ Eastern region. ⁸ Deflated by the producer price index, all commodities.

Source: U.S. Forest Service, *Timber Demand and Technology Assessment*, RWU-4851. Also in *Agricultural Statistics*, annual.

No. 851. Paper and Paperboard—Production and New Supply: 1990 to 2002

[In millions of short tons (80.45 represents 80,450,000)]

Item	1990	1995	1996	1997	1998	1999	2000	2001	2002, prel.
Production, total	80.45	91.33	92.25	96.92	96.40	98.65	96.05	90.38	91.14
Paper, total	39.36	42.87	42.48	44.70	44.76	45.98	45.52	42.10	41.54
Paperboard, total	39.32	46.64	47.95	50.40	49.83	51.04	48.97	46.81	48.13
Unbleached kraft	20.36	22.70	22.23	23.22	23.20	23.11	21.80	20.44	21.09
Semicchemical	5.64	5.66	5.62	6.05	5.89	6.01	5.95	5.58	5.84
Bleached kraft	4.40	5.30	5.24	5.55	5.49	5.71	5.44	5.30	5.30
Recycled	8.92	12.98	14.87	15.58	15.25	16.21	15.79	15.50	15.91
Wet machine board E	0.15	0.15	0.10	0.10	0.10	0.06	0.06	0.05	0.05
Building paper E	0.81	0.81	0.79	0.79	0.79	0.66	0.64	0.58	0.58
Insulating board E	0.86	0.86	0.93	0.93	0.93	0.91	0.86	0.85	0.85
New supply, all grades, excluding products	87.68	98.16	98.34	101.27	103.01	106.90	105.12	99.17	100.81
Paper, total	49.49	52.77	50.69	54.15	55.13	57.30	57.22	53.29	53.85
Newsprint	13.41	12.76	11.77	12.61	12.80	13.09	13.01	11.52	11.52
Printing/writing papers	25.46	29.55	28.30	30.75	31.38	32.53	32.99	30.38	30.95
Packaging and ind. conv. papers	4.72	4.24	4.33	4.27	4.29	4.71	4.27	4.31	4.20
Tissue	5.90	6.22	6.29	6.52	6.66	6.98	6.95	7.07	7.18
Paperboard, total	36.30	43.45	43.67	45.13	45.67	47.59	46.02	44.09	45.29
Construction and other	1.90	1.95	1.99	1.99	2.20	2.00	1.88	1.80	1.66

Source: American Forest and Paper Association, Washington, DC, *Monthly Statistical Summary of Paper, Paperboard and Woodpulp*.

No. 852. Fishery Products—Domestic Catch, Imports, and Disposition: 1990 to 2002

[Live weight, in millions of pounds (16,349 represents 16,349,000,000). For data on commercial catch for selected countries, see Table 1356, Section 30]

Item	1990	1995	1996	1997	1998	1999	2000	2001	2002
Total	16,349	16,484	16,474	17,131	16,897	17,378	17,338	18,118	19,028
For human food	12,662	13,584	13,625	13,739	14,175	14,462	14,738	15,306	16,007
For industrial use	3,687	2,900	2,848	3,392	2,722	2,916	2,599	2,812	3,021
Domestic catch	9,404	9,788	9,565	9,845	9,194	9,339	9,069	9,492	9,397
For human food	7,041	7,667	7,474	7,248	7,174	6,832	6,912	7,314	7,205
For industrial use	2,363	2,121	2,091	2,597	2,020	2,507	2,157	2,178	2,192
Imports ¹	6,945	6,696	6,909	7,286	7,703	8,039	8,269	8,626	9,631
For human food	5,621	5,917	6,150	6,491	7,001	7,630	7,827	7,992	8,802
For industrial use ²	1,324	779	759	795	702	409	442	634	829
Exports	4,627	5,166	5,220	5,537	4,889	5,208	5,757	7,107	6,979
For human food	3,832	4,175	4,176	4,326	3,709	4,130	4,586	5,774	5,587
For industrial use	795	991	1,044	1,211	1,180	1,078	1,171	1,333	1,392
Disposition of domestic catch	9,404	9,788	9,565	9,846	9,194	9,339	9,069	9,492	9,397
Fresh and frozen	6,501	7,099	7,054	6,877	6,870	6,416	6,657	7,085	6,826
Canned	751	769	678	648	516	712	530	536	652
Cured	126	90	93	108	129	133	119	123	117
Reduced to meal, oil, etc.	2,026	1,830	1,740	2,213	1,679	2,078	1,763	1,748	1,802

¹ Excludes imports of edible fishery products consumed in Puerto Rico; includes landings of tuna caught by foreign vessels in American Samoa. ² Fish meal and sea herring.

No. 853. Fisheries—Quantity and Value of Domestic Catch: 1980 to 2002

Year	Quantity (mil. lb. ¹)				Year	Quantity (mil. lb. ¹)				
	For industrial products ²		Value (mil. dol.)	Average price per lb. (cents)		For industrial products ²		Value (mil. dol.)	Average price per lb. (cents)	
	Total	For human food				Total	For human food			
1980	6,482	3,654	2,828	34.5	1992	9,637	7,618	2,019	3,678	
1981	5,977	3,547	2,430	39.8	1993	³ 10,467	8,214	2,253	3,471	
1982	6,367	3,285	3,082	37.5	1994	10,461	7,936	2,525	3,807	
1983	6,439	3,238	3,201	36.6	1995	9,788	7,667	2,121	3,770	
1984	6,438	3,320	3,118	35.0	1996	9,565	7,474	2,091	3,487	
1985	6,258	3,294	2,964	32.6	1997	9,845	7,248	2,597	3,448	
1986	6,031	3,393	2,638	37.2	1998	9,194	7,174	2,020	3,128	
1987	6,896	3,946	2,950	45.2	1999	9,339	6,832	2,507	3,467	
1988	7,192	4,588	2,604	48.9	2000	9,069	6,912	2,157	3,549	
1989	8,463	6,204	2,259	38.3	2001	9,492	7,314	2,178	3,228	
1990	9,404	7,041	2,363	35.7	2002	9,397	7,205	2,192	3,092	
1991	9,484	7,031	2,453	34.9					32.9	

¹ Live weight. ² Meal, oil, fish solubles, homogenized condensed fish, shell products, bait, and animal food. ³ Represents record year.

No. 854. Domestic Fish and Shellfish Catch and Value by Major Species Caught: 1990 to 2002

Species	Quantity (1,000 lb.)					Value (\$1,000)				
	1990		2000			1990		2001	2002	
	Total	For human food	Total	For human food		Total	For human food	2001	2002	
Total	9,403,571	9,068,985	9,491,836	9,397,164	3,521,995	3,549,481	3,228,285	3,092,318		
Fish, total ¹	8,091,068	7,689,661	8,242,490	8,089,987	1,900,097	1,594,815	1,479,988	1,359,392		
Cod: Atlantic	95,881	25,060	33,211	29,841	61,329	26,384	32,086	30,715		
Pacific	526,396	530,505	471,711	512,827	91,384	142,330	118,071	96,206		
Flounder	254,519	412,723	352,363	372,697	112,921	109,910	105,240	102,370		
Halibut	70,454	75,190	77,978	82,044	96,700	143,826	115,169	135,603		
Herring, sea: Atlantic	113,095	160,269	209,191	135,871	5,746	9,972	12,717	9,106		
Herring, sea: Pacific	108,120	74,835	91,297	78,408	32,178	12,043	13,213	11,534		
Menhaden	1,962,160	1,760,498	1,741,430	1,750,609	93,896	112,403	102,690	105,102		
Pollock, Alaska	3,108,031	2,606,802	3,179,407	3,341,105	268,344	160,525	230,723	203,696		
Salmon	733,146	628,638	722,832	567,179	612,367	270,213	208,926	155,010		
Tuna	62,393	50,779	51,854	49,358	105,040	95,176	93,497	84,116		
Whiting (Atlantic, silver)	44,500	26,855	28,479	17,622	11,281	11,370	13,232	7,454		
Whiting (Pacific, hake)	21,232	452,718	379,304	285,714	1,229	18,809	16,147	13,584		
Shellfish, total ¹	1,312,503	1,379,324	1,138,512	1,178,590	1,621,898	1,954,666	1,711,391	1,706,426		
Clams	139,198	118,482	122,764	130,076	130,194	153,973	161,992	167,215		
Crabs	499,416	299,006	272,246	307,601	483,837	405,006	381,667	397,695		
Lobsters: American	61,017	83,180	73,637	82,252	154,677	301,300	254,334	293,329		
Oysters	29,193	41,146	32,673	34,397	93,718	90,667	80,946	89,071		
Scallops, sea	39,917	32,747	46,958	53,056	153,696	164,609	175,349	203,707		
Shrimp	346,494	332,486	324,481	316,727	491,433	690,453	568,547	460,878		
Squid, Pacific	36,082	259,508	191,532	160,677	2,636	27,077	17,834	18,262		

¹ Includes other types of fish and shellfish, not shown separately.

Source of Tables 852-854: U.S. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, *Fisheries of the United States*, annual. See also <http://www.st.nmfs.gov/st1/fus/fus01/2002-fus.pdf> (released September 2003).

No. 855. U.S. Private Aquaculture—Trout and Catfish Production and Value: 1990 to 2002

[67.8 represents 67,800,000. Periods are from Sept. 1 of the previous year to Aug. 31 of stated year. Data are for foodsize fish, those over 12 inches long]

Item	Unit	1990	1995	1997	1998	1999	2000	2001	2002
TROUT FOODSIZE									
Number sold	Millions	67.8	60.2	59.3	57.6	61.0	58.5	54.5	50.2
Total weight	Mil. lb.	56.8	55.6	56.9	57.9	60.2	59.2	56.9	54.5
Total value of sales	Mil. dol.	64.6	60.8	60.7	60.3	64.7	63.7	64.4	58.3
Average price received	Dol./lb.	1.14	1.09	1.07	1.04	1.07	1.08	1.13	1.07
Percent sold to processors	Percent	58	68	63	62	68	70	68	69
CATFISH FOODSIZE									
Number sold	Millions	272.9	321.8	391.8	409.8	424.5	420.1	406.9	405.8
Total weight	Mil. lb.	392.4	481.5	569.6	601.4	635.2	633.8	647.5	673.7
Total value of sales	Mil. dol.	305.1	378.1	406.8	445.4	464.7	468.8	410.7	378.5
Average price received	Dol./lb.	0.78	0.79	0.71	0.74	0.73	0.74	0.63	0.56
Fish sold to processors	Mil. lb.	360.4	446.9	524.9	564.4	596.6	593.6	597.1	630.6
Avg. price paid by processors	Cents/lb.	75.8	78.6	71.2	74.3	73.7	75.1	64.7	56.8
Processor sales	Mil. lb.	183.1	227.0	261.8	281.4	292.7	297.2	296.4	317.6
Avg. price received by processors	Cents/lb.	224.1	240.3	226.0	229.0	234.0	236.0	226.0	207.0
Inventory (Jan. 1)	Mil. lb.	9.4	10.9	11.9	10.8	12.6	13.6	15.0	12.3

Source: U.S. Dept. of Agriculture, National Agricultural Statistics Service, *Trout Production* released February; *Catfish Production* released February; and *Catfish Processing* released February. Also in annual.

No. 856. Supply of Selected Fishery Items: 1990 to 2002

[In millions of pounds (734 represents 734,000,000). Totals available for U.S. consumption are supply minus exports plus imports. Round weight is the complete or full weight as caught]

Species	Unit	1990	1995	1996	1997	1998	1999	2000	2001	2002
Shrimp	Heads-off weight . . .	734	832	842	923	1,002	1,084	1,172	1,312	1,430
Tuna, canned	Canned weight . . .	856	875	859	829	912	1,020	980	796	922
Snow crab	Round weight . . .	37	42	46	110	254	216	122	171	172
Clams	Meat weight . . .	152	144	134	124	119	125	133	139	144
Salmon, canned	Canned weight . . .	148	147	104	82	83	123	95	108	135
American lobster	Round weight . . .	95	94	97	112	110	122	124	125	135
Spiny lobster	Round weight . . .	89	89	81	76	100	91	99	79	87
Scallops	Meat weight . . .	74	62	71	66	58	64	78	76	91
Sardines, canned	Canned weight . . .	61	44	46	49	50	57	(NA)	(NA)	(NA)
Oysters	Meat weight . . .	56	63	58	58	61	55	71	58	62
King crab	Round weight . . .	19	21	30	45	62	52	41	38	47
Crab meat, canned	Canned weight . . .	9	12	13	15	22	26	29	35	44

NA Not available.

Source: U.S. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, *Fisheries of the United States*, annual. See also <<http://www.st.nmfs.gov/st1/fus/fus01/2001-fus.pdf>>. (released September 2002).

No. 857. Canned, Fresh, and Frozen Fishery Products—Production and Value: 1990 to 2002

[Fresh fishery products exclude Alaska and Hawaii. Canned fishery products data are for natural pack only]

Product	Production (mil. lb.)					Value (mil. dol.)				
	1990	1995	2000	2001	2002	1990	1995	2000	2001	2002
Canned, total ¹	1,178	1,927	1,747	1,634	1,315	1,562	1,887	1,626	1,400	1,288
Tuna	581	667	671	507	547	902	939	856	658	675
Salmon	196	244	171	185	224	366	419	288	259	296
Clam products	110	129	127	126	139	76	110	120	125	117
Sardines, Maine	13	14	(Z)	(Z)	(Z)	17	24	(Z)	(Z)	(Z)
Shrimp	1	1	2	2	2	3	7	11	10	9
Crabs	1	(Z)	(Z)	(Z)	(Z)	4	(Z)	(Z)	(Z)	(Z)
Oysters ²	1	(Z)	(Z)	1	(Z)	1	(Z)	1	1	(Z)
Fish fillets and steaks ³ . . .	441	385	368	480	519	843	841	823	914	984
Cod	65	65	56	40	51	132	152	167	123	155
Flounder	54	35	27	30	29	154	86	71	74	77
Haddock	7	3	6	6	7	24	11	24	27	29
Ocean perch, Atlantic	1	(Z)	(Z)	(Z)	(Z)	1	1	1	1	1
Rockfish	33	25	11	7	8	53	38	25	17	18
Pollok, Atlantic	12	4	2	2	5	21	10	4	8	15
Pollok, Alaska	164	135	160	271	304	174	184	178	296	327
Other	105	118	106	124	115	284	359	353	368	362

Z Less than 500,000 pounds or \$500,000. ¹ Includes other products, not shown separately. ² Includes oyster specialties. ³ Fresh and frozen.

Source: U.S. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, *Fisheries of the United States*, annual. See also <<http://www.st.nmfs.gov/st1>>. (Released September 2003).

No. 858. Mining and Primary Metal Production Indexes: 1990 to 2002

[Index 1997=100]

Industry group	1990	1994	1995	1996	1997	1998	1999	2000	2001	2002
Mining	98.7	96.6	96.4	98.1	100.0	98.2	94.0	96.0	96.6	93.8
Coal	96.4	95.0	94.6	96.9	100.0	101.2	99.4	98.2	100.7	96.3
Oil and gas extraction	102.9	100.8	99.8	99.9	100.0	98.3	96.3	96.5	97.6	97.3
Crude oil and natural gas	104.4	101.4	100.1	99.9	100.0	98.5	96.1	95.9	97.3	97.0
Oil and gas drilling	92.9	83.5	81.3	87.2	100.0	98.3	82.0	110.3	125.0	91.0
Metal mining	84.8	91.9	92.8	94.9	100.0	99.2	90.7	90.3	82.0	74.0
Iron ore	89.2	91.9	98.9	98.1	100.0	99.3	91.3	99.2	72.7	81.8
Nonferrous ores	91.9	100.0	100.4	103.4	100.0	107.5	99.4	94.5	89.3	(NA)
Copper ore	89.4	104.7	104.7	108.7	100.0	105.4	90.7	81.4	76.9	(NA)
Primary metals, manufacturing	85.5	92.6	93.7	95.9	100.0	102.3	101.7	98.8	88.2	85.6
Nonferrous metals	89.4	98.8	98.7	100.8	100.0	109.1	101.4	88.2	90.0	77.3
Copper	60.6	102.6	112.0	95.1	100.0	122.6	107.8	46.7	63.4	50.5
Aluminum	97.6	97.6	93.4	94.9	100.0	104.5	105.0	99.4	86.0	87.3
Iron and steel	85.3	93.3	94.8	97.1	100.0	100.4	100.0	100.3	86.7	88.7

NA Not available.

Source: Board of Governors of the Federal Reserve System, *Federal Reserve Bulletin*, monthly; and *Industrial Production and Capacity Utilization*, Statistical Release G.17, monthly.

No. 859. Mineral Industries—Employment, Hours, and Earnings: 1990 to 2003

[Based on the Current Employment Statistics Program, see Appendix III]

Industry and item	Unit	1990	2000	2003	Industry and item	Unit	1990	2000	2003
All mining:					Avg. weekly hours . . .	Number . . .	44.4	41.3	41.1
All employees . . .	1,000...	765	599	571	Avg. weekly earnings . . .	Dollars . . .	591	802	778
Production workers . . .	1,000...	538	446	419	Metal mining:				
Avg. weekly hours . . .	Number . . .	45.0	44.4	43.6	All employees . . .	1,000...	53	38	27
Avg. weekly earnings . . .	Dollars . . .	603	735	767	Production workers . . .	1,000...	43	29	20
Coal mining:					Avg. weekly hours . . .	Number . . .	42.5	43.4	43.7
All employees . . .	1,000...	136	72	70	Avg. weekly earnings . . .	Dollars . . .	646	871	957
Production workers . . .	1,000...	110	59	59	Nonmetallic minerals, except fuels:				
Avg. weekly hours . . .	Number . . .	44.7	45.6	46.2	All employees . . .	1,000...	113	115	105
Avg. weekly earnings . . .	Dollars . . .	822	945	964	Production workers . . .	1,000...	85	87	78
Oil and gas extraction:					Avg. weekly hours . . .	Number . . .	45.0	46.1	45.1
All employees . . .	1,000...	190	125	123	Avg. weekly earnings . . .	Dollars . . .	532	722	773
Production workers . . .	1,000...	84	67	68					

Source: U.S. Bureau of Labor Statistics, *Bulletin 2370* and *Employment and Earnings*, March and June issues.

No. 860. Selected Mineral Products—Average Prices: 1980 to 2003

[Excludes Alaska and Hawaii, except as noted]

Year	Nonfuels							Fuels			
	Copper, electrolytic (cents per lb.)	Platinum ¹ (dol./troy oz.)	Gold (dol./fine oz.)	Silver (dol./fine oz.)	Lead (cents per lb.)	Tin (New York) (cents per lb.)	Zinc (cents per lb.)	Sulfur, crude ² (dol./metric ton)	Bituminous coal ^{3,4} (dol./short ton)	Crude petroleum ³ (dol./bbl.)	Natural gas ³ (dol./1,000 cu. ft.)
1980	101	677	613	20.63	43	846	37	89.06	29.17	21.59	1.59
1981	84	446	460	10.52	37	733	45	111.48	31.51	31.77	1.98
1982	73	327	376	7.95	26	654	39	108.27	32.15	28.52	2.46
1983	77	424	424	11.44	22	655	41	87.24	31.11	26.19	2.59
1984	67	357	361	8.14	26	624	49	94.31	30.63	25.88	2.66
1985	67	291	318	6.14	19	596	40	106.46	30.78	24.09	2.51
1986	66	461	368	5.47	22	383	38	105.22	28.84	12.51	1.94
1987	83	553	478	7.01	36	419	42	89.78	28.19	15.40	1.67
1988	121	523	438	6.53	37	441	60	85.95	27.66	12.58	1.69
1989	131	507	383	5.50	39	520	82	86.62	27.40	15.86	1.69
1990	123	467	385	4.82	46	386	75	80.14	27.43	20.03	1.71
1991	109	371	363	4.04	34	363	53	71.45	27.49	16.54	1.64
1992	107	360	345	3.94	35	402	58	48.14	26.78	15.99	1.74
1993	92	375	361	4.30	32	350	46	31.86	26.15	14.25	2.04
1994	111	411	385	5.29	37	369	49	28.60	25.68	13.19	1.85
1995	138	425	386	5.15	42	416	56	44.46	25.56	14.62	1.55
1996	109	398	389	5.19	49	412	51	34.11	25.17	18.46	2.17
1997	107	397	332	4.89	47	381	65	36.06	24.64	17.23	2.32
1998	79	375	295	5.54	45	373	51	29.14	24.87	10.87	1.96
1999	76	379	280	5.25	44	366	54	37.81	23.92	15.56	2.19
2000	88	549	280	5.00	44	370	56	24.73	24.15	26.72	3.69
2001	77	533	272	4.39	44	315	44	10.01	25.36	21.84	4.02
2002	76	543	311	4.62	44	292	39	11.84	26.35	22.51	2.95
2003	82	590	350	4.66	44	357	39	25.00	(NA)	27.56	4.98

NA Not available. ¹ Average annual dealer prices. ² F.o.b. works. ³ Average value at the point of production or domestic first purchase price. ⁴ Includes lignite.

Source: Nonfuels, through 1994, U.S. Bureau of Mines, thereafter, U.S. Geological Survey, *Minerals Yearbook* and *Mineral Commodity Summaries*, annual; fuels, U.S. Energy Information Administration, *Annual Energy Review* and most recent year from the *Monthly Energy Review*.

No. 861. Mineral Production: 1990 to 2003

[Data represent production as measured by mine shipments, mine sales or marketable production]

Minerals and Metals	Unit	1990	1995	2000	2002	2003, est.
FUEL MINERALS						
Coal, total	Mil. sh. tons	1,029.1	1,033.0	1,073.6	1,094.3	1,069.5
Bituminous	Mil. sh. tons	693.2	613.8	574.3	565.7	(NA)
Subbituminous	Mil. sh. tons	244.3	328.0	409.2	444.7	(NA)
Lignite	Mil. sh. tons	88.1	86.5	85.6	82.1	(NA)
Anthracite	Mil. sh. tons	3.5	4.7	4.6	1.3	(NA)
Natural gas (marketed production)	Tril. cu. ft.	18.59	19.51	20.20	19.92	20.07
Petroleum (crude)	Mil. bbl. ¹	2,686	2,394	2,125	5,746	5,737
Uranium (recoverable content)	Mil. lb.	8.9	6.0	4.0	(NA)	(NA)
NONFUEL MINERALS						
Asbestos (sales)	1,000 metric tons	(D)	9	5	3	-
Barite, primary, sold/used by producers	1,000 metric tons	430	543	392	420	480
Boron minerals, sold or used by producers	1,000 metric tons	1,090	1,190	1,070	(NA)	(NA)
Bromine, sold or used by producers	1,000 metric tons	177	218	228	222	216
Cement:						
Portland	Mil. metric tons	67	73	84	(NA)	(NA)
Masonry	Mil. metric tons	3	4	4	(NA)	(NA)
Clays	1,000 metric tons	42,900	43,100	40,800	39,300	39,300
Diatomite ²	1,000 metric tons	631	722	677	624	625
Feldspar ²	1,000 metric tons	630	880	790	790	800
Fluorspar, finished shipments	1,000 metric tons	64	51	(NA)	(NA)	(NA)
Garnet (industrial)	1,000 metric tons	47	46	60	39	39
Gypsum, crude	Mil. metric tons	15	17	20	16	16
Helium ³	Mil. cu. meters	85	101	98	87	87
Lime, sold or used by producers	Mil. metric tons	16	19	20	18	18
Mica, scrap & flake, sold/used by producers	1,000 metric tons	109	108	101	81	98
Peat, sales by producers	1,000 metric tons	721	660	792	642	618
Perlite, processed, sold or used	1,000 metric tons	576	700	672	521	512
Phosphate rock (marketable)	Mil. metric tons	46	44	39	36	33
Potash (K ₂ O equivalent) sales	1,000 metric tons	1,710	1,480	1,300	1,200	1,100
Pumice & pumicite, producer sales	1,000 metric tons	443	529	1,050	956	914
Salt, common, sold/used by producers	Mil. metric tons	37	41	43	38	39
Sand & gravel, sold/used by producer Construction	Mil. metric tons	855	935	1,148	1,157	1,158
Industrial	Mil. metric tons	829	907	1,120	1,130	1,130
Vermiculite	Mil. metric tons	26	28	28	27	28
Sodium carbonate (natural) (soda ash)	1,000 metric tons	9,100	10,100	10,200	10,500	10,600
Sodium sulfate (natural)	1,000 metric tons	349	327	462	500	500
Stone ⁴	Mil. metric tons	1,110	2,420	2,870	2,780	2,840
Crushed and broken	Mil. metric tons	1,110	1,260	1,550	1,520	1,490
Dimension ⁵	1,000 metric tons	1,120	1,160	1,320	1,260	1,350
Sulfur: Total shipments	1,000 metric tons	11,500	12,100	10,700	9,260	9,500
Sulfur: Frasch mines (shipments)	1,000 metric tons	3,680	(D)	900	-	-
Talc, and pyrophyllite, crude	1,000 metric tons	1,270	1,060	851	775	817
Vermiculite concentrate	1,000 metric tons	209	171	150	(D)	100
METALS						
Antimony ore and concentrate	Metric tons	(D)	262	(D)	-	-
Aluminum	1,000 metric tons	4,048	3,375	3,668	2,707	2,700
Bauxite (dried)	1,000 metric tons	(D)	(D)	(NA)	(NA)	(NA)
Copper (recoverable content)	1,000 metric tons	1,590	1,850	1,450	1,140	1,120
Gold (recoverable content)	Metric tons	294	317	353	298	266
Iron ore (gross weight) ⁶	Mil. metric tons	57	61	63	52	50
Lead (recoverable content)	1,000 metric tons	484	394	465	451	450
Magnesium metal	1,000 metric tons	139	142	82	74	75
Manganiferous ore (gross weight) ⁷	1,000 metric ton	(D)	(D)	(NA)	(NA)	-
Mercury ⁸	Metric tons	562	(D)	(NA)	(NA)	(NA)
Molybdenum (concentrate)	1,000 metric tons	62	61	41	33	34
Nickel	1,000 metric tons	-	2	-	-	-
Palladium metal	Kilograms	5,930	5,260	10,300	14,800	14,600
Platinum metal	Kilograms	1,810	1,590	3,110	4,390	4,100
Silicon (silicon content)	1,000 metric tons	418	396	367	261	250
Silver (recoverable content)	Metric tons	2,120	1,560	1,860	1,420	1,300
Titanium concentrate: Ilmenite (gross weight)	1,000 metric tons	(D)	(D)	(NA)	(NA)	(NA)
Tungsten ore and concentrate ⁹	Metric tons	(D)	(D)	(NA)	(NA)	(NA)
Zinc (recoverable content)	1,000 metric tons	515	614	852	780	770

- Represents zero. D Withheld to avoid disclosing individual company data. NA Not available. ¹ 42 gal. bbl.

² Beginning 1995, includes aplite. ³ Refined. ⁴ Excludes abrasive stone, bituminous limestone and sandstone, and ground soapstone, all included elsewhere in table. Includes calcareous marl and slate. ⁵ Includes Puerto Rico. ⁶ Represents shipments; includes byproduct ores. ⁷ 5 to 35 percent manganiferous ore. ⁸ Covers mercury recovered as a by product of gold ores only. ⁹ Content of ore and concentrate.

Source: Nonfuels, through 1995, U.S. Bureau of Mines, thereafter, U.S. Geological Survey, *Minerals Yearbook* and *Mineral Commodities Summaries*, annual; fuels, U.S. Energy Information Administration, *Annual Energy Review* and *Uranium Industry Annual*.

No. 862. Nonfuel Mineral Commodities—Summary: 2003

[Preliminary estimates. Average price in dollars per metric tons except as noted]

Mineral	Mineral disposition				Average price per unit (\$dollars)	Employment (number)
	Unit	Production	Exports	Net import reliance ¹ (percent)	Consumption, apparent	
Aluminum	1,000 metric tons.	2,700	1,500	41	6,500	2 ^{67.00}
Antimony (contained)	Metric tons	34,200	3,300	(D)	(D)	2 ^{110.00}
Asbestos	1,000 metric tons.	-	4	100	(NA)	220.00
Barite	1,000 metric tons.	480	50	81	2,470	4 ^{28.90}
Bauxite and alumina	1,000 metric tons.	(NA)	1,140	100	3,000	4 ^{20.00}
Beryllium (contained)	Metric tons	100	120	47	190	2 ^{5(NA)}
Bismuth (contained)	Metric tons	-	110	95	(NA)	2 ^{2.90}
Boron (B ₂ O ₃ content)	1,000 metric tons.	536	244	(5)	488	4 ^{7(NA)}
Bromine (contained)	1,000 metric tons.	216	12	(5)	211	8 ^{972.00}
Cadmium (contained)	Metric tons	3640	250	(5)	530	2 ^{105.30}
Cement	1,000 metric tons.	91,000	900	20	112,000	4 ^{76.00}
Chromium	1,000 metric tons.	1129	16	74	492	4 ^{12(NA)}
Clays	1,000 metric tons.	39,300	4,980	(5)	34,600	(NA)
Cobalt (contained)	Metric tons	112,200	2,500	78	10,000	2 ⁴⁰
Copper (Mine, contained)	1,000 metric tons.	1,120	774	38	2,370	82.00
Diamond (industrial)	Million carats	241	66	80	398	1 ^{24.46}
Diatomite	1,000 metric tons.	625	39	(5)	588	4 ^{254.00}
Feldspar	1,000 metric tons.	800	10	(5)	799	4 ^{55.00}
Fluorspar	1,000 metric tons.	92	30	100	590	(NA)
Garnet (industrial)	Metric tons	38,700	10,900	56	58,900	4 ^(NA)
Germanium (contained)	Kilograms	12,000	(NA)	(NA)	(NA)	65
Gold (contained)	Metric tons	266	320	(5)	(NA)	350.00
Gypsum (crude)	1,000 metric tons.	16,000	165	23	33,000	8 ^{6.90}
Iodine	Metric tons	1,750	1,150	74	6,650	21 ^{11.79}
Iron ore (usable)	Million metric tons.	50	6.4	11	56.1	4 ^{2218.00}
Iron and steel slag (metal)	1,000 metric tons.	19,000	400	6	18,600	4 ^{15.50}
Lead (contained)	1,000 metric tons.	1,750	160	11	1,460	2 ^{44.00}
Lime	1,000 metric tons.	18,200	103	(Z)	18,200	91.50
Magnesium compounds	1,000 metric tons.	285	50	51	585	(NA)
Magnesium metal	1,000 metric tons.	(NA)	22	47	120	(NA)
Mercury	Metric tons	11(NA)	200	(NA)	(NA)	26 ^{170.00}
Mica, scrap and flake	1,000 metric tons.	205	7	7	105	4 ^{120.00}
Molybdenum (contained)	Metric tons	34,100	32,300	(5)	13,900	81 ^{11.57}
Nickel (contained)	Metric tons	54,730	48	126,000	2 ^{274.29}	
Nitrogen (fixed)-ammonia	1,000 metric tons.	9,300	500	42	16,000	4 ^{2840.00}
Peat	1,000 metric tons.	618	30	55	1,390	25.75
Perlite	1,000 metric tons.	512	40	28	712	43 ^{37.36}
Phosphate rock	1,000 metric tons.	33,300	5	10	(NA)	4 ^{26.93}
Platinum-group metals	Kilograms	18,700	33,190	170	(NA)	17 ^{29(NA)}
Potash (K ₂ O equivalent)	1,000 metric tons.	1,100	370	80	5,300	4 ^{30155.00}
Pumice and pumicite	1,000 metric tons.	914	30	29	1,280	4 ^{23.56}
Salt	1,000 metric tons.	41,200	500	23	50,100	4 ^{31122.00}
Silicon (contained)	1,000 metric tons.	250	23	54	530	49.00
Silver (contained)	Metric tons	1,300	320	56	5,430	17 ^{4.66}
Sodium carbonate (soda ash)	1,000 metric tons.	10,600	4,400	(5)	6,200	33 ^{105.00}
Sodium sulfate	1,000 metric tons.	500	140	(5)	405	34 ^{114.00}
Stone (crushed)	Million metric tons.	1,490	3	(Z)	1,500	4 ^{5.78}
Sulfur (all forms)	1,000 metric tons.	9,550	890	20	11,900	4 ^{3525.00}
Talc	1,000 metric tons.	817	180	8	887	4 ^{114.00}
Thallium (contained)	Kilograms	-	(NA)	100	(NA)	8 ^{1300.00}
Tin (contained)	Metric tons	1111,000	4,020	91	44,980	2 ^{224.00}
Titanium dioxide	1,000 metric tons.	1,410	590	(5)	1,070	2 ^{360.90}
Tungsten (contained)	Metric tons	4,300	5,010	69	11,700	37 ^{50.00}
Vermiculite	1,000 metric tons.	(D)	10	28	138	143.00
Zinc (contained)	1,000 metric tons.	1,100	831	57	1,370	0 ^{.39}
Zirconium (ZrO ₂) content	Metric tons	100,000	44,800	(NA)	(D)	4 ^{39293.00}

- Represents or rounds to zero. D Withheld to avoid disclosure. NA Not available. Z Less than half the unit of measure.

¹ Calculated as a percent of apparent consumption. ² Dollars per pound. ³ Refinery production. ⁴ Dollars per metric ton.

⁵ Net exporter. ⁶ Metal, vacuum-cast ingot. ⁷ Granulated pentahydrate borax in bulk, f.o.b mine. ⁸ Dollars per kilogram.

⁹ Bulk, purified bromine. ¹⁰ 1- to 5-short ton lots. ¹¹ Secondary production. ¹² Turkish, chromite price. ¹³ Columbite price. ¹⁴ Value of imports, dollars per carat. ¹⁵ Reported consumption. ¹⁶ Zone refined. ¹⁷ Dollars per troy ounce.

¹⁸ Price of flake imports. ¹⁹ Includes employment at calcining plants. ²⁰ 99.97% indium. ²¹ C.i.f. value, crude, per kilogram. ²² Price of eastern Canadian ore. ²³ Delivered, No. 1 Heavy Melting composite price. ²⁴ Year-end price.

²⁵ 46%-48% Mn metallurgical ore, per unit contained Mn, c.i.f. U.S. ports. ²⁶ Dollars per 76-pound flask. ²⁷ London Metal Exchange cash price. ²⁸ F.o.b. gulf coast. ²⁹ Dealer price of platinum. ³⁰ Price of K2O, muriate. ³¹ Vacuum and open pan, bulk, pellets and packaged, f.o.b. mine and plant. ³² Ferrosilicon, 50% Si. ³³ Quoted year-end price, dense, bulk, f.o.b. Green River, WY, dollars per short ton. ³⁴ Quoted price, bulk, f.o.b. works, East, dollars per short ton. ³⁵ Elemental sulfur, f.o.b. mine and/or plant. ³⁶ Rutile, list, year-end. ³⁷ Dollars per unit W03 (7.93 kilograms of contained tungsten per unit). ³⁸ All forms.

³⁹ Price for imported zircon, f.o.b. U.S. east coast.

Source: U.S. Geological Survey, *Mineral Commodity Summaries*, annual.

**No. 863. Value of Domestic Nonfuel Mineral Production by State:
1990 to 2003**

[In millions of dollars (33,445 represents \$33,445,000,000), except as indicated. For similar data on fuels, see table 881]

State	2003							
	1990	1995	2000	2001	2002	Total	Rank	Percent of U.S.
United States	133,445	38,506	40,100	38,900	38,000	38,000	(X)	100.00
Alabama	559	706	1,070	938	968	863	17	2.29
Alaska	577	538	1,140	1,060	1,030	1,060	12	2.82
Arizona	3,085	4,190	2,550	2,110	1,920	2,100	3	5.58
Arkansas	381	492	506	491	543	445	30	1.18
California	2,771	2,760	3,350	3,250	3,440	3,170	1	8.42
Colorado	377	570	566	676	619	672	22	1.79
Connecticut	122	93	² 100	104	142	142	42	0.38
Delaware	10	9	² 12	13	17,500	16	50	0.04
Florida	1,574	1,540	1,920	1,750	2,020	2,000	5	5.33
Georgia	1,504	1,690	1,660	1,610	1,450	1,670	6	4.45
Hawaii	106	114	91	70	75	74	45	0.20
Idaho	375	510	398	344	307	294	36	0.78
Illinois	667	828	907	911	950	911	16	2.42
Indiana	428	589	729	718	740	734	18	1.95
Iowa	310	456	510	487	487	477	29	1.27
Kansas	349	498	624	640	661	688	20	1.83
Kentucky	359	432	497	531	372	559	24	1.49
Louisiana	368	434	² 404	274	294	331	34	0.88
Maine	55	68	² 102	91	106	100	43	0.27
Maryland	368	324	357	356	375	382	33	1.01
Massachusetts	128	190	210	209	235	186	39	0.49
Michigan	1,440	1,520	1,670	1,620	1,580	1,350	7	3.60
Minnesota	1,482	1,530	1,570	1,440	1,090	1,230	11	3.28
Mississippi	111	131	157	177	176	174	40	0.46
Missouri	1,105	1,140	1,320	1,340	1,290	1,290	8	3.43
Montana	573	574	582	514	442	492	26	1.31
Nebraska	90	146	170	163	89	94	44	0.25
Nevada	2,621	3,060	² 2,800	2,930	2,900	2,940	2	7.81
New Hampshire	36	50	² 59	60	68	64	47	0.17
New Jersey	229	243	286	348	285	272	37	0.72
New Mexico	1,103	1,130	812	615	571	533	25	1.42
New York	773	886	970	1,050	1,010	978	14	2.60
North Carolina	586	735	779	744	708	676	21	1.80
North Dakota	25	31	42	39	39	38	48	0.10
Ohio	733	891	1,060	1,070	1,060	968	15	2.57
Oklahoma	259	357	² 453	530	462	479	28	1.27
Oregon	205	239	² 439	326	320	311	35	0.83
Pennsylvania	1,031	1,080	² 1,250	1,270	1,270	1,260	10	3.35
Rhode Island	18	31	24	28	17	26	49	0.07
South Carolina	450	447	560	531	460	484	27	1.29
South Dakota	319	332	260	255	186	206	38	0.55
Tennessee	663	665	770	708	629	606	23	1.61
Texas	1,459	1,680	² 2,050	2,210	2,180	2,030	4	5.39
Utah	1,335	1,850	² 1,420	1,310	1,240	1,260	9	3.36
Vermont	87	60	43	69	71	73	46	0.19
Virginia	507	515	692	751	697	727	19	1.93
Washington	483	582	691	545	450	430	31	1.14
West Virginia	133	181	² 182	185	173	168	41	0.45
Wisconsin	215	416	349	368	340	404	32	1.07
Wyoming	911	973	922	986	1,010	1,010	13	2.68

X Not applicable. ¹ Includes undistributed not shown separately. ² Partial data only; excludes values withheld to avoid disclosing individual company data.

Source: U.S. Geological Survey, *Minerals Yearbook*, annual, and *Mineral Commodities Summaries*, annual. See also <<http://minerals.er.usgs.gov/minerals/pubs/mcs2003/mcs2003.pdf>> (released 31 January 2003).

No. 864. Principal Fuels, Nonmetals, and Metals—World Production and the U.S. Share: 1980 to 2003

Mineral	Unit	World production				Percent U.S. of world			
		1980	1990	1995	2003 ¹	1980	1990	1995	2003 ¹
Fuels: ²									
Coal	Mil. sh. ton	4,193	5,386	5,218	(NA)	19.8	19.1	20.0	(NA)
Petroleum (crude)	Bil. bbl.	21.8	22.1	22.8	(NA)	14.4	12.2	10.5	(NA)
Natural gas (dry, marketable)	Tril. cu. ft.	53.5	73.6	78.0	(NA)	36.3	24.2	23.9	(NA)
Natural gas plant liquids	Bil. bbl.	1.3	1.7	2.0	(NA)	45.7	33.7	32.1	(NA)
Nonmetals:									
Asbestos	1,000 metric tons	4,699	4,003	2,420	2,060	2	(D)	(Z)	(Z)
Barite	1,000 metric tons	7,495	5,633	4,300	6,700	27	8	13	7
Feldspar	1,000 metric tons	3,202	5,456	6,780	10,400	20	12	13	8
Fluorspar	1,000 metric tons	5,006	5,131	4,050	4,540	2	1	1	-
Gypsum	Mil. metric tons	78	100	97	102	14	15	17	16
Mica (incl. scrap)	1,000 metric tons	228	215	253	300	46	51	43	33
Nitrogen, (fixed) - ammonia	Mil. metric tons	74	97	96	108	20	13	14	8
Phosphate rock, gross wt.	Mil. metric tons	144	162	130	138	38	29	33	27
Potash (K ₂ O equivalent)	Mil. metric tons	28	28	25	27	8	6	6	4
Sulfur, elemental	Mil. metric tons	55	58	53	59	22	20	22	16
Metals, mine basis:									
Bauxite	Mil. metric tons	89	109	107	144	2	(D)	(D)	(NA)
Columbian concentrates (Nb content)	1,000 metric tons	15	15	18	30	-	-	-	-
Copper	1,000 metric tons	7,405	9,017	10,100	13,900	16	18	18	8
Gold	Metric tons	1,219	2,133	2,220	2,600	2	14	14	10
Iron ore	Mil. metric tons	891	982	1,027	1,120	8	6	6	4
Lead ³	1,000 metric tons	3,470	3,353	2,780	2,840	17	15	14	16
Mercury	Metric tons	6,806	4,523	3,160	1,600	16	12	(D)	(NA)
Molybdenum	1,000 metric tons	111	128	141	127	62	48	43	27
Nickel ³	1,000 metric tons	779	965	1,030	1,400	2	(Z)	(Z)	(Z)
Silver	1,000 metric tons	11	16	15	19	9	13	10	7
Tantalum concentrates	Metric tons	544	400	362	1,230	-	-	-	-
Titanium concentrates:									
Ilmenite	1,000 metric tons	3,726	4,072	3,970	4,300	14	(D)	(D)	(D)
Rutile	1,000 metric tons	436	481	416	420	(D)	(D)	(D)	(D)
Tungsten ³	1,000 metric tons	52	43	39	60	5	14	-	-
Vanadium ³	1,000 metric tons	37	31	35	60	12	(D)	(D)	(D)
Zinc ³	1,000 metric tons	5,954	7,184	7,240	8,500	6	8	9	9
Metals, smelter basis:									
Aluminum	1,000 metric tons	15,383	19,292	19,900	27,300	30	21	17	10
Cadmium	1,000 metric tons	18	20	19	15	9	8	7	4
Copper	1,000 metric tons	7,649	9,472	10,200	(NA)	14	15	16	8
Iron, pig	Mil. metric tons	514	532	533	634	12	9	10	6
Lead ⁴	1,000 metric tons	5,430	5,763	5,590	(NA)	23	23	25	22
Magnesium ⁵	1,000 metric tons	316	354	389	447	49	39	37	(NA)
Raw steel	Mil. metric tons	717	771	755	924	14	12	13	10
Tin ⁶	1,000 metric tons	251	223	201	265	1	-	-	(NA)
Zinc	1,000 metric tons	6,049	7,060	7,550	(NA)	6	5	5	(NA)

- Represents or rounds to zero. NA Not available. D Withheld to avoid disclosing company data. Z Less than half the unit of measure. ¹ Preliminary data. ² Source: Energy Information Administration, *International Energy Annual*. ³ Content of ore and concentrate. ⁴ Refinery production. ⁵ Primary production; no smelter processing necessary. ⁶ Production from primary sources only.

Source: Nonfuels, through 1990, U.S. Bureau of Mines, thereafter, U.S. Geological Survey, *Minerals Yearbook*, annual, and *Mineral Commodities Summaries*, annual; fuels, U.S. Energy Information Administration, *International Energy Annual*. See also <<http://minerals.er.usgs.gov/minerals/pubs/mcs/2004/mcs2004.pdf>>.

No. 865. Federal Strategic and Critical Materials Inventory: 1990 to 2002

[As of Dec. 31. Covers strategic and critical materials essential to military and industrial requirements in time of national emergency]

Mineral	Unit	Quantity ¹				Value (mil.dol.) ²			
		1990	1995	2000	2002	1990	1995	2000	2002
Bauxite ³	1,000 lg. ton	18,033	16,032	6,267	1,722	888	203	49	13
Chromium ⁴	1,000 sh. ton	1,074	1,192	937	849	917	839	606	556
Cobalt	Mil. lb.	53	44	23	14	443	1,121	313	139
Diamonds: Stones	Carat 1,000	7,777	5,135	1,509	796	267	52	15	8
Industrial, bort	Carat 1,000	17,353	1,967	-	-	16	9	-	-
Lead	1,000 sh. ton	(NA)	465	226	170	(NA)	263	103	72
Manganese ⁵	1,000 sh. ton	4,017	2,817	2,146	1,743	962	464	255	215
Palladium	1,000 troy oz.	(NA)	1,265	842	189	(NA)	143	326	64
Platinum	1,000 troy oz.	453	453	217	21	186	154	84	10
Silver	1,000 troy oz.	92,151	46,667	15,942	664	374	158	61	2
Tantalum Group	1,000 lb.	(NA)	3,031	2,282	2,124	(NA)	127	94	73
Tin	1,000 metric ton	169	130	60	44	962	908	323	211
Titanium	1,000 sh. ton	37	37	30	15	402	221	96	44
Tungsten ⁶	Mil. lb.	82	82	74	65	253	253	156	154
Zinc	1,000 sh. ton	379	301	151	120	483	281	152	105

- Represents or rounds to zero. NA Not available. ¹ Consists of stockpile and nonstockpile grades and reflects uncommitted balances. ² Market values are estimated trade values of similar materials and not necessarily amounts that would be realized at time of sale. ³ Consists of abrasive grade, metallic grade Jamaica, metallic grade Suriname, and refractory. ⁴ Consists of ferro-high carbon, ferro-low carbon, ferro-silicon, and metal. ⁵ Consists of chemical grade, dioxide battery natural, dioxide battery synthetic, electrolytic, ferro-high carbon, ferro-med. carbon, ferro-silicon, and metal. ⁶ Consists of carbide powder, ferro, metal powder, and ores and concentrates.

Source: U.S. Defense Logistics Agency, *Statistical Supplement, Stockpile Report to the Congress* (AP-3).

No. 866. Net U.S. Imports of Selected Minerals and Metals as Percent of Apparent Consumption: 1980 to 2003

[In percent. Based on net imports which equal the difference between imports and exports plus or minus Government stockpile and industry stock changes]

Minerals in rank of net imports	1980	1990	1995	1998	1999	2000	2001	2002	2003
Bauxite ¹	94	98	99	100	100	100	100	100	100
Columbium	100	100	100	100	100	100	100	100	100
Manganese	98	100	100	100	100	100	100	100	100
Mica (sheet)	100	100	100	100	100	100	100	100	100
Strontrium	100	100	100	100	100	100	100	100	100
Vanadium	35	(D)	84	78	80	(NA)	100	100	100
Tin	79	71	84	85	85	86	88	79	91
Barite	44	71	65	80	67	71	87	76	81
Potash	65	68	75	80	80	70	80	80	80
Tantalum	90	71	80	80	80	80	80	80	80
Chromium	91	84	80	80	78	78	63	74	74
Cobalt	93	86	79	73	73	74	78	75	78
Zinc ²	60	41	35	35	30	60	60	60	57
Tungsten	53	81	90	77	81	68	59	70	69
Nickel	76	64	60	64	63	58	56	43	48
Silver	7	(NA)	(NA)	14	14	52	44	61	56
Aluminum	(3)	36	23	27	30	33	35	39	41
Copper	16	15	27	14	27	37	31	37	38
Gypsum	35	46	30	28	29	22	25	25	23
Iron and steel	13	13	21	27	22	17	15	14	9
Iron ore	25	3	14	12	17	19	15	11	11
Sulfur	14	21	21	18	17	22	12	15	20
Cadmium	55	(3)	23	20	19	6	3	(3)	(3)
Mercury	27	(D)	(NA)						
Platinum group	87	88	(NA)						
Selenium	59	46	31	(D)	(D)	(D)	(D)	(D)	(D)

D Withheld to avoid disclosure. NA Not available. ¹ Includes alumina. ² Beginning 1990, effect of sharp rise in exports of concentrates. If calculated on a refined zinc-only basis, reliance would be about the same as pre-1990 level; 1990, 64%; 1995, 71%; 1998, 69%; and 1999, 71%. ³ Net exports.

Source: Through 1994, U.S. Bureau of Mines; thereafter, U.S. Geological Survey, *Mineral Commodity Summaries*; import and export data from U.S. Census Bureau.

No. 867. Federal Offshore Leasing, Exploration, Production, and Revenue: 1990 to 2002

[See source for explanation of terms and for reliability statement]

Item	Unit	1990	1995	1997	1998	1999	2000	2001	2002
Tracts offered	Number	10,459	10,995	9,870	8,205	7,453	7,992	8,790	8,548
Tracts leased	Number	825	835	1,780	1,157	333	553	942	804
Acres offered	Millions	56.79	59.70	26.24	44.10	40.22	42.89	49.15	45.69
Acres leased	Millions	4.30	4.34	9.62	6.34	1.77	2.92	5.00	4.20
Bonus paid for leased tracts	Bil. dol.	0.6	0.4	(NA)	1.3	0.3	0.3	1.0	0.1
New wells being drilled:									
Active	Number	120	124	186	173	219	224	213	119
Suspended	Number	266	247	244	122	110	146	97	72
Cumulative wells (since 1953):									
Wells completed	Number	13,167	13,475	13,546	13,702	13,676	13,718	13,921	13,282
Wells plugged and abandoned	Number	14,677	18,008	18,728	21,050	22,115	22,814	24,218	25,232
Revenue, total ¹	Bil. dol.	3.4	2.7	5.3	4.3	3.2	5.2	45.8	55.0
Bonuses	Bil. dol.	0.8	0.4	1.4	1.3	0.2	0.4	40.5	50.1
Oil and gas royalties ¹	Bil. dol.	2.6	2.1	3.4	2.7	2.6	4.1	44.8	54.7
Rentals	Bil. dol.	0.09	0.09	0.23	0.26	0.21	0.21	40.13	50.44
Sales value ²	Bil. dol.	17.0	13.8	22.3	17.6	17.4	27.4	431.4	531.0
Oil	Bil. dol.	7.0	6.3	9.0	6.2	6.5	11.5	411.3	512.1
Natural gas	Bil. dol.	9.5	7.5	13.3	11.4	10.9	15.9	420.1	518.9
Sales volume: ³									
Oil	Mil. bbls.	324	409	479	477	513	566	4463	5612
Natural gas	Bil. cu. ft.	5,093	4,692	5,077	4,836	4,992	4,723	4,370	5,4971

NA Not available. ¹ Includes condensate royalties. ² Production value is value at time of production, not current value.

³ Excludes sales volumes for gas lost, gas plant products or sulfur. ⁴ Covers January through September 2001 only.

⁵ Estimated.

Source: U.S. Dept. of the Interior, Minerals Management Service, *Federal Offshore Statistics*, annual.

No. 868. Petroleum Industry—Summary: 1980 to 2002

[Includes all costs incurred for drilling and equipping wells to point of completion as productive wells or abandonment after drilling becomes unproductive. Based on sample of operators of different size drilling establishments]

Item	Unit	1980	1990	1995	1997	1998	1999	2000	2001	2002
Crude oil producing wells (Dec. 31)	1,000...	548	602	574	573	562	546	534	530	519
Daily output per well	Bbl.	15.9	12.2	11.4	11.3	11.1	10.8	10.9	10.9	11.2
Completed wells drilled, total	1,000...	57.73	26.50	17.75	24.39	20.61	16.53	25.68	31.46	22.43
Crude oil	1,000...	30.88	11.54	7.09	10.01	6.77	4.02	7.09	7.75	4.78
Gas	1,000...	15.25	10.36	7.78	10.79	10.64	10.34	15.85	21.12	15.26
Dry	1,000...	11.60	4.60	2.88	3.59	3.19	2.17	2.74	2.59	2.39
Average depth per well ¹	Feet	4,172	4,649	5,500	5,535	6,057	5,253	4,894	5,387	5,580
Average cost per well	\$1,000	368	384	513	604	769	856	755	943	1,054
Average cost per foot ¹	Dollars	77.02	76.07	87.22	107.83	128.97	152.02	142.16	181.94	195.31
Crude oil production, total	Mil. bbl.	3,138	2,685	2,394	2,355	2,282	2,147	2,125	2,117	2,097
Value at wells	Bil. dol.	67.9	53.8	35.0	40.6	24.8	33.4	56.9	46.3	47.8
Average price per barrel	Dollars	21.59	20.03	14.62	17.23	10.87	15.56	26.72	21.84	22.51
Lower 48 states	Mil. bbl.	2,548	2,037	1,853	1,882	1,853	1,764	1,771	1,766	1,738
Alaska	Mil. bbl.	590	647	542	473	429	383	354	351	359
Onshore	Mil. bbl.	2,760	2,290	1,838	1,753	1,664	1,508	1,478	1,416	1,371
Offshore	Mil. bbl.	377	395	557	602	618	639	647	702	724
Imports: Crude oil	Mil. bbl.	1,921	2,151	2,639	3,002	3,178	3,187	3,311	3,405	3,302
Refined petroleum products	Mil. bbl.	601	775	586	707	731	775	872	928	844
Exports: Crude oil	Mil. bbl.	104.8	39.8	34.7	39.4	40.2	43.1	18.3	7.3	3.3
Proved reserves	Bil. bbl.	29.8	26.3	22.4	22.5	21.0	21.8	22.0	22.4	22.7
Operable refineries	Number	319	205	175	164	163	159	158	(NA)	(NA)
Capacity (Jan. 1)	Mil. bbl.	6,566	5,683	5,632	5,639	5,734	5,935	6,026	(NA)	(NA)
Refinery input, total	Mil. bbl.	5,119	5,325	5,555	5,807	5,893	5,878	5,948	5,979	5,948
Crude oil	Mil. bbl.	4,921	4,894	5,100	5,352	5,434	5,403	5,499	5,522	5,448
Natural gas plant liquids	Mil. bbl.	169	170	172	152	147	136	139	157	162
Other liquids	Mil. bbl.	30	260	775	304	311	338	310	301	338
Refinery output, total	Mil. bbl.	5,337	5,574	5,838	6,117	6,216	6,201	6,294	6,309	6,297
Motor gasoline	Mil. bbl.	2,370	2,540	2,723	2,826	2,881	2,896	2,902	2,928	2,983
Jet fuel	Mil. bbl.	365	543	517	567	557	571	586	558	552
Distillate fuel oil	Mil. bbl.	971	1,068	1,152	1,238	1,250	1,241	1,307	1,349	1,310
Residual fuel oil	Mil. bbl.	577	347	288	258	278	255	254	263	219
Liquefied petroleum gases	Mil. bbl.	120	182	239	252	246	250	257	243	246
Utilization rate	Percent	75.4	87.1	92.0	95.2	95.6	92.6	92.6	92.6	90.3

NA Not available. ¹ Source: American Petroleum Institute, *Joint Association Survey on Drilling Costs*, annual.

Source: Except as noted, U.S. Energy Information Administration, *Annual Energy Review*, *Petroleum Supply Annual*; U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves; and *Monthly Energy Review*.

No. 869. U.S. Petroleum Balance: 1980 to 2002

[In millions of barrels (6,242 represents 6,242,000,000)]

Item	1980	1990	1995	1997	1998	1999	2000	2001	2002
Petroleum products supplied for domestic use									
Production of products	6,242	6,201	6,470	6,796	6,905	7,125	7,211	7,172	7,213
Crude input to refineries	5,765	5,934	6,322	6,671	6,733	6,774	6,903	6,942	6,925
Oil, field production	4,934	4,894	5,100	5,351	5,434	5,403	5,514	5,522	5,456
Alaska	3,138	2,685	2,394	2,355	2,282	2,147	2,125	2,117	2,097
Lower 48 States	590	647	542	473	429	383	354	351	359
Net imports	2,548	2,037	1,853	1,882	1,853	1,764	1,771	1,766	1,738
Imports (gross excluding SPR) ¹	1,821	2,112	2,604	2,963	3,137	3,144	3,301	3,398	3,333
SPR ¹ imports	1,910	2,142	2,639	3,002	3,178	3,184	3,317	3,401	3,330
Exports	16	10	-	-	-	3	3	4	6
Other sources	-105	40	35	39	40	43	18	7	3
Natural gas liquids (NGL), supply	577	574	708	721	717	757	799	801	798
Other liquids	253	465	514	599	582	614	589	619	671
Net imports of refined products	484	326	101	154	225	252	305	303	249
Imports	578	598	407	469	508	537	648	636	581
Exports	94	272	307	315	283	284	343	333	332
Stock withdrawal, refined products	-7	-59	46	-29	-53	98	2	-73	39
TYPE OF PRODUCT SUPPLIED									
Total products supplied									
Finished motor gasoline	6,242	6,201	6,469	6,796	6,905	7,125	7,211	7,172	7,213
Distillate fuel oil	2,407	2,641	2,843	2,926	3,012	3,077	3,101	3,143	3,229
Residual fuel oil	1,049	1,103	1,170	1,254	1,263	1,304	1,362	1,404	1,378
Liquified petroleum gases ²	918	449	311	291	324	303	333	296	255
Other	414	568	693	744	713	801	816	746	789
ENDING STOCKS									
Ending stocks, all oils									
Crude oil and lease condensate	1,392	1,621	1,563	1,560	1,647	1,493	1,468	1,586	1,548
Strategic Petroleum Reserve (SPR)	358	323	303	305	324	284	286	312	278
Other	108	586	592	563	571	567	541	550	599

¹ Represents zero. ² SPR=Strategic petroleum reserve. For more information, see Table 911. ² Includes ethane.

Source: U.S. Energy Information Administration, *Petroleum Supply Annual*, volume 1. See also <<http://www.eia.doe.gov/pub/oilgas/petroleum/datapublications/petroleumsupplyannual/psovolume1/current/pdf/volume1all.pdf>> (released June 2003).

No. 870. Crude Petroleum and Natural Gas—Production and Value by Major Producing States: 1990 to 2002

[2,685 mil. bbl. represents 2,685,000,000 bbl. or 18,594 bil. cu. ft. represents 18,594,000,000,000 cu. ft.]

State	Crude petroleum						Natural gas marketed production ¹					
	Quantity (mil. bbl.)			Value (mil. dol.)			Quantity (bil. cu. ft.)			Value (mil. dol.)		
	1990	2000	2002	1990	2000	2002	1990	2000	2002	1990	2000	2002
Total ²	2,685	2,131	2,097	53,772	56,932	47,206	18,594	20,198	19,921	31,658	74,339	58,723
AL.	18	10	9	387	289	202	135	523	356	373	2,087	1,238
AK.	658	355	359	10,086	8,439	7,018	403	459	463	554	807	989
AR.	10	7	7	222	193	158	175	172	162	360	898	718
CA.	322	271	258	5,732	6,729	5,643	363	377	360	857	1,812	1,052
CO.	31	18	18	722	533	448	243	753	842	377	2,765	2,030
FL.	6	5	4	(NA)	(NA)	(NA)	6	6	3	15	(NA)	(NA)
IL.	20	12	12	467	343	287	1	(Z)	(Z)	1	(NA)	(NA)
IN.	3	2	2	73	59	46	(Z)	1	1	1	3	4
KS.	59	34	33	1,359	970	773	574	526	455	893	1,690	1,187
KY.	5	3	3	124	92	60	75	82	88	169	258	265
LA.	148	105	93	3,409	3,060	2,322	5,242	5,069	1,362	9,587	18,642	4,363
MI.	20	8	7	458	222	171	140	297	274	420	724	594
MS.	30	20	18	630	520	398	95	89	113	167	293	346
MT.	20	15	17	429	429	384	50	70	86	90	198	206
NE.	5	3	3	119	83	66	1	1	2	2	3	3
NM.	66	67	67	1,472	1,935	1,616	965	1,687	1,632	1,629	5,790	4,380
NY.	(Z)	-	-	9	6	4	25	18	37	55	67	112
ND.	39	33	31	849	922	748	52	52	57	93	206	170
OH.	8	7	6	196	181	136	155	105	103	393	426	466
OK.	117	70	67	2,690	2,035	1,632	2,258	1,613	1,551	3,548	5,857	4,568
PA.	2	2	2	54	43	56	178	201	158	417	(NA)	(NA)
TX.	674	443	412	15,060	12,681	9,793	6,343	6,205	5,141	9,939	24,384	16,258
UT.	23	16	14	524	446	326	146	269	275	249	883	547
WV.	2	1	1	43	38	31	178	264	190	568	(NA)	(NA)
WY.	103	61	55	2,169	1,633	1,202	736	1,088	1,454	856	3,640	3,923
Federal offshore.	296	558	598	6,468	28,420	25,410	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

NA Not available. Z Less than 500,000 barrels, 500 million cubic feet, or less than \$500,000. ¹ Excludes nonhydrocarbon gases.

² Includes other states not shown separately. State production does not include state offshore production. U.S. level totals shown in Tables 868 and 869 may contain revisions not carried to state level.

Source: U.S. Energy Information Administration, *Petroleum Supply Annual*, Vol. 2, and *Petroleum Marketing Annual*; and *Natural Gas Annual*, and *Natural Gas Monthly*.

No. 871. Crude Oil, Natural Gas, and Natural Gas Liquids—Reserves by State: 1990 to 2002

[26,254 mil. bbl. represents 26,254,000,000 bbl. As of December 31. Proved reserves are estimated quantities of the mineral, which geological and engineering data demonstrate with reasonable certainty, to be recoverable in future years from known reservoirs under existing economic and operating conditions. Based on a sample of operators of oil and gas wells]

Area	1990			2001			2002		
	Crude oil proved (mil.bbl.)	Natural gas (bil. cu. ft.)	Natural gas liquids (mil. bbl.)	Crude oil proved (mil.bbl.)	Natural gas (bil. cu. ft.)	Natural gas liquids (mil. bbl.)	Crude oil proved (mil.bbl.)	Natural gas (bil. cu. ft.)	Natural gas liquids (mil. bbl.)
United States ¹	26,254	169,346	7,586	22,446	183,460	7,993	22,677	186,946	7,994
Lower 48 States	19,730	160,046	7,246	17,595	174,660	7,588	17,999	178,478	7,589
Alabama	44	4,125	170	42	3,915	64	51	3,884	57
Alaska	6,524	9,300	340	4,851	8,800	405	4,678	8,468	405
Arkansas	60	1,731	9	43	1,616	5	49	1,650	4
California	1,658	3,185	105	3,627	2,681	76	3,633	2,951	95
Colorado	305	4,555	169	196	12,527	345	214	13,888	396
Florida	(NA)	(NA)	(NA)	75	84	12	73	91	14
Illinois	(NA)	(NA)	(NA)	92	(NA)	(NA)	107	(NA)	(NA)
Indiana	131	(NA)	(NA)	12	(NA)	(NA)	15	(NA)	(NA)
Kansas	(NA)	(NA)	(NA)	216	5,101	302	237	4,983	263
Kentucky	321	9,614	313	17	1,860	72	27	1,907	66
Louisiana	33	1,016	25	564	9,811	391	501	8,960	323
Michigan	(NA)	(NA)	(NA)	46	2,976	43	61	3,254	47
Mississippi	(NA)	(NA)	(NA)	167	661	10	179	744	8
Montana	(NA)	(NA)	(NA)	260	898	5	288	906	6
Nebraska	221	899	15	15	(NA)	(NA)	18	(NA)	(NA)
New Mexico	(NA)	(NA)	(NA)	715	17,414	873	710	17,320	838
New York	687	17,260	990	(NA)	318	(NA)	(NA)	315	(NA)
North Dakota	285	586	60	328	443	57	342	471	47
Ohio	65	1,214	(NA)	46	970	(NA)	67	1,117	(NA)
Oklahoma	734	16,151	657	556	13,558	694	598	14,886	695
Pennsylvania	22	1,720	(NA)	10	1,775	(NA)	12	2,216	(NA)
Texas	17,106	38,192	12,575	4,944	43,527	2,653	5,015	44,297	2,711
Utah	249	1,510	(²)	271	4,579	(²)	241	4,135	(²)
Virginia	(NA)	138	(NA)	(NA)	1,752	(NA)	(NA)	1,673	(NA)
West Virginia	31	2,207	86	8	2,678	106	13	3,360	99
Wyoming	794	9,944	3,812	489	18,398	3,947	524	20,527	3,938
Federal offshore	2,805	31,433	619	4,835	27,036	1078	5,009	25,204	973

NA Not available. ¹ Excludes Federal offshore. ² Included with Wyoming. ³ Includes Utah.

Source: Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 2002 Annual Report*, December 2003.

No. 872. World Daily Crude Oil Production by Major Producing Country: 1980 to 2001

[In thousands of barrels per day (59,600 barrels represents 59,600,000 barrels)]

Country	1980	1990	1995	1996	1997	1998	1999	2000	2001
World, total¹	59,600	60,566	62,335	63,711	65,690	66,921	65,848	68,342	68,057
Algeria	1,106	1,175	1,202	1,242	1,277	1,246	1,202	1,254	1,270
Angola	150	475	646	709	714	735	745	746	742
Argentina	491	483	715	756	834	847	802	761	781
Australia	380	575	562	570	588	544	539	722	657
Brazil	182	631	695	795	841	969	1,132	1,269	1,295
Canada	1,435	1,553	1,805	1,837	1,922	1,981	1,907	1,977	2,029
China	2,114	2,774	2,990	3,131	3,200	3,198	3,195	3,249	3,300
Colombia	126	440	585	623	652	733	816	691	602
Egypt	595	873	920	922	856	834	852	748	698
India	182	660	703	651	675	661	653	646	642
Indonesia	1,577	1,462	1,503	1,547	1,520	1,518	1,472	1,423	1,369
Iran	1,662	3,088	3,643	3,686	3,664	3,634	3,557	3,696	3,724
Iraq	2,514	2,040	560	579	1,155	2,150	2,508	2,571	2,432
Kazakhstan	(X)	(X)	362	403	466	476	530	610	704
Kuwait	1,656	1,175	2,057	2,062	2,007	2,085	1,898	2,079	1,998
Libya	1,787	1,375	1,390	1,401	1,446	1,390	1,319	1,410	1,367
Malaysia	283	619	682	695	700	720	693	690	659
Mexico	1,936	2,553	2,618	2,855	3,023	3,070	2,906	3,012	3,157
Nigeria	2,055	1,810	1,993	2,001	2,132	2,153	2,130	2,165	2,256
Norway	528	1,704	2,768	3,104	3,143	3,017	3,018	3,197	3,117
Oman	282	685	851	883	904	900	910	970	960
Qatar	472	406	442	510	550	696	665	737	714
Russia	(X)	(X)	5,995	5,850	5,920	5,854	6,079	6,479	7,049
Saudi Arabia	9,900	6,410	8,231	8,218	8,362	8,389	7,833	8,404	8,031
Syria	164	388	575	582	561	553	538	523	518
United Arab Emirates	1,709	2,117	2,233	2,278	2,316	2,345	2,169	2,368	2,276
United Kingdom	1,622	1,820	2,489	2,568	2,518	2,616	2,684	2,275	2,282
United States	8,597	7,355	6,560	6,465	6,452	6,252	5,881	5,822	5,801
Venezuela	2,168	2,137	2,750	2,938	3,280	3,167	2,826	3,155	2,880
Yemen	(X)	193	345	340	362	388	409	440	438

X Not applicable. ¹ Includes countries not shown separately.

Source: U.S. Energy Information Administration, *International Energy Annual*, 2001. See also <<http://tonto.eia.doe.gov/FTPROOT/international/021901.pdf>> (issued March 2003).

No. 873. Liquefied Petroleum Gases—Summary: 1980 to 2003

[In millions of 42-gallon barrels (561 barrels represents 561,000,000 barrels). Includes ethane]

Item	1980	1990	1995	1998	1999	2000	2001	2002	2003
Production	561	638	760	775	814	845	813	813	822
At natural gas plants	441	456	521	529	564	587	570	568	577
At refineries	121	182	234	246	250	258	243	245	245
Imports	79	68	53	71	66	79	75	67	67
Refinery input	85	107	105	92	87	87	88	90	90
Exports	9	14	21	15	18	27	16	24	24
Stocks, Dec. 31	116	98	93	115	89	83	121	106	106

Source: U.S. Energy Information Administration, *Petroleum Supply Annual*, volume 1.

No. 874. Natural Gas Plant Liquids—Production and Value: 1980 to 2003

[Barrels of 42 gallons (576 barrels represents 576,000,000 barrels)]

Item	Unit	1980	1990	1995	1998	1999	2000	2001	2002	2003
Field production ¹	Mil. bbl . . .	576	566	643	642	675	699	682	686	686
Pentanes plus	Mil. bbl . . .	126	112	122	113	111	112	112	109	109
Liquefied petroleum gases	Mil. bbl . . .	441	454	521	529	564	587	570	577	577
Natural gas processed	Tril. cu. ft. . .	15	15	17	17	17	17	17	(NA)	(NA)

NA Not available. ¹ Includes other finished petroleum products, not shown separately.

Source: U.S. Energy Information Administration, *Petroleum Supply Annual* and *Natural Gas Annual*.

No. 875. Natural Gas—Supply, Consumption, Reserves, and Marketed Production: 1980 to 2002

[182 represents 182,000 wells]

Item	Unit	1980	1990	1995	1997	1998	1999	2000	2001	2002
Producing wells (year-end)	1,000	182	269	299	311	317	302	342	367	386
Production value at wells	Bil. dol	32.1	31.8	30.2	46.1	38.2	43.4	74.3	82.5	58.9
Avg. per 1,000 cu. ft	Dollars	1.59	1.71	1.55	2.32	1.96	2.19	3.68	4.00	2.95
Proved reserves ¹	Tril. cu. ft	199	169	165	167	164	167	177	183	187
Marketed production²	Bil. cu. ft	20,180	18,594	19,506	19,866	19,961	19,805	20,198	20,630	19,969
Minus: Extraction losses ³	Bil. cu. ft.	777	784	908	964	938	973	1,016	954	922
Equals: Dry production	Bil. cu. ft.	19,403	17,810	18,599	18,902	19,024	18,832	19,182	19,676	19,047
Plus: Supplemental gas supplies	Bil. cu. ft.	155	123	110	103	102	98	90	86	80
Equals: Dry production with supplemental gas	Bil. cu. ft.	19,558	17,932	18,709	19,005	19,126	18,930	19,272	19,762	19,127
Plus: Withdrawals from storage	Bil. cu. ft.	1,972	1,986	3,025	2,894	2,432	2,808	3,550	2,344	3,126
Plus: Imports ⁴	Bil. cu. ft.	985	1,532	2,841	2,994	3,152	3,586	3,782	3,977	4,008
Plus: Balancing item	Bil. cu. ft.	-640	307	396	871	657	-119	-271	45	-610
Equals: Total supply	Bil. cu. ft.	21,875	21,758	24,971	25,764	25,367	25,205	26,333	26,128	25,651
Minus: Exports	Bil. cu. ft.	49	86	154	157	159	163	244	373	516
Minus: Additions to storage ⁵	Bil. cu. ft.	1,949	2,499	2,610	2,870	2,961	2,636	2,721	3,509	2,679
Equals: Consumption, total	Bil. cu. ft.	19,877	19,174	22,207	22,737	22,246	22,405	23,368	22,246	22,455
Lease and plant fuel	Bil. cu. ft.	1,026	1,236	1,220	1,203	1,173	1,079	1,151	1,089	1,053
Pipeline fuel	Bil. cu. ft.	635	660	700	751	635	645	642	624	630
Residential	Bil. cu. ft.	4,752	4,391	4,850	4,984	4,520	4,726	4,996	4,776	4,914
Commercial ⁶	Bil. cu. ft.	2,611	2,623	3,031	3,215	2,999	3,045	3,218	3,037	3,114
Industrial	Bil. cu. ft.	7,172	7,018	8,164	8,511	8,320	8,079	8,142	7,363	7,177
Vehicle fuel	Bil. cu. ft.	(NA)	-	5	8	9	12	13	15	15
Electric utilities	Bil. cu. ft.	3,682	2,794	3,288	3,039	3,544	3,729	4,093	4,164	4,209
World production (dry)	Tril. cu. ft.	53.4	73.6	78.0	81.5	83.0	84.9	88.3	90.5	92.3
U.S. production (dry)	Tril. cu. ft.	19.4	17.8	18.6	18.9	19.0	18.8	19.2	19.7	19.1
Percent of U.S. of world	Percent	36.4	24.2	23.9	23.2	22.9	22.2	21.7	21.7	20.6

¹ Represents zero. ² NA Not available. ³ Estimated, end of year. Source: U.S. Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, annual*. ⁴ Marketed production includes gross withdrawals from reservoirs less quantities used for reservoir repressuring and quantities vented or flared. Excludes nonhydrocarbon gases subsequently removed. ⁵ Volumetric reduction in natural gas resulting from the extraction of natural gas constituents at natural gas processing plants. ⁶ Includes imports of liquefied natural gas.

⁶ Includes deliveries to municipalities and public authorities for institutional heating and other purposes.

Source: Except as noted, U.S. Energy Information Administration, *Annual Energy Review, International Energy Annual, Natural Gas Annual*, Volume I and II, and *Monthly Energy Review*.

No. 876. World Natural Gas Production by Major Producing Country: 1980 to 2002

[In trillion cubic feet (53.35 represents 53,350,000,000,000)]

Country	1980	1990	1995	1997	1998	1999	2000	2001	2002
World Total¹	53.35	73.57	77.96	81.52	83.03	84.93	88.29	90.51	92.29
Russia	(X)	(X)	21.01	20.17	20.87	20.83	20.63	20.51	21.03
United States	19.40	17.81	18.60	18.90	19.02	18.83	19.18	19.68	19.05
Canada	2.76	3.85	5.60	5.76	5.98	6.26	6.47	6.60	6.63
Algeria	0.41	1.79	2.05	2.43	2.60	2.88	2.94	2.79	2.80
Netherlands	3.40	2.69	2.98	2.99	2.84	2.67	2.56	2.75	2.66
Indonesia	0.63	1.53	2.24	2.37	2.27	2.51	2.36	2.34	2.48
Uzbekistan	(X)	(X)	1.70	1.74	1.94	1.96	1.99	2.23	2.04
Iran	0.25	0.84	1.25	1.66	1.77	2.04	2.13	2.33	2.65
Norway	0.92	0.98	1.08	1.62	1.63	1.76	1.87	1.95	2.41
Malaysia	0.06	0.65	1.02	1.36	1.37	1.42	1.50	1.66	1.71
Saudi Arabia	0.33	1.08	1.34	1.60	1.65	1.63	1.76	1.90	2.00
Turkmenistan	(X)	(X)	1.14	0.90	0.47	0.79	1.64	1.70	1.89
United Arab Emirates	0.20	0.78	1.11	1.28	1.31	1.34	1.36	1.39	1.53
Argentina	0.28	0.63	0.88	0.97	1.04	1.22	1.32	1.31	1.28
Mexico	0.90	0.90	0.96	1.17	1.27	1.29	1.31	1.30	1.33
Australia	0.31	0.72	1.03	1.06	1.10	1.10	1.16	1.19	1.26
Qatar	0.18	0.28	0.48	0.61	0.69	0.78	1.03	0.95	1.04
Venezuela	0.52	0.76	0.89	0.99	1.11	0.95	0.96	1.12	1.05
China	0.51	0.51	0.60	0.75	0.78	0.85	0.96	1.07	1.15
Pakistan	0.29	0.48	0.65	0.70	0.71	0.78	0.86	0.77	0.81
India	0.05	0.40	0.63	0.72	0.76	0.75	0.79	0.85	0.88
Germany	0.93	0.72	0.74	0.79	0.77	0.82	0.78	0.79	0.79
Egypt	0.03	0.29	0.44	0.48	0.49	0.52	0.65	0.87	0.94
Thailand	(X)	0.21	0.37	0.54	0.57	0.63	0.66	0.66	0.69
Ukraine	(X)	(X)	0.62	0.64	0.64	0.63	0.64	0.64	0.65
Nigeria	0.04	0.13	0.18	0.21	0.21	0.25	0.44	0.53	0.50
Italy	0.44	0.61	0.72	0.68	0.67	0.62	0.59	0.54	0.51
Trinidad and Tobago	0.08	0.18	0.27	0.33	0.33	0.41	0.49	0.54	0.61
Romania	1.20	1.00	0.68	0.61	0.52	0.50	0.48	0.51	0.47
Oman	0.03	0.10	0.15	0.18	0.25	0.20	0.32	0.49	0.53
Brunei	0.32	0.32	0.33	0.32	0.32	0.33	0.35	0.37	0.38
Kazakhstan	(X)	(X)	0.17	0.22	0.19	0.16	0.31	0.36	0.46
Bangladesh	0.05	0.16	0.26	0.27	0.29	0.32	0.34	0.36	0.38
Kuwait	0.24	0.19	0.21	0.33	0.32	0.31	0.34	0.30	0.29
Bahrain	0.10	0.21	0.23	0.28	0.29	0.30	0.30	0.31	0.33

X Not applicable. ¹ Includes countries not shown separately.

Source: U. S. Energy Information Administration, *International Energy Annual*. See also <http://www.eia.doe.gov>.

No. 877. Coal Supply, Disposition, and Prices: 1997 to 2003

[In millions of short tons (1,089.9 represents 1,089,900,000)]

Item	1997	1998	1999	2000	2001	2002	2003
United States, total	1,089.9	1,117.5	1,100.4	1,073.6	1,127.7	1,094.3	1,069.5
Consumption by sector							
Total	1,030.1	1,038.3	1,045.3	1,084.1	1,060.1	1,066.4	1,090.5
Electric power	922.0	937.8	946.8	985.8	964.4	977.5	1,000.6
Coke plants	30.2	28.2	28.1	28.9	26.1	23.7	24.2
Other industrial plants	71.5	67.4	65.5	65.2	65.3	60.7	61.2
Residential/commercial users	6.5	4.9	4.9	4.1	4.4	4.4	4.4
Year-end coal stocks							
Total	140.4	164.6	183.0	140.0	181.9	192.1	164.0
Electric power	98.8	120.5	136.0	102.0	138.5	141.7	121.6
Coke plants	2.0	2.0	1.9	1.5	1.5	1.4	0.9
Other industrial plants	5.6	5.5	5.6	4.6	6.0	5.8	4.7
Producers/distributors	34.0	36.5	39.5	31.9	35.9	43.3	36.8
U.S. coal trade							
Net exports	76.1	69.3	49.4	46.0	28.9	22.7	18.0
Exports	83.5	78.0	58.5	58.5	48.7	39.6	43.0
Steam coal	31.4	31.0	26.3	25.7	23.3	18.1	20.9
Metallurgical coal	52.2	47.1	32.1	32.8	25.4	21.5	22.1
Imports	7.5	8.7	9.1	12.5	19.8	16.9	25.0
Average delivered price (dollars per short ton)							
Electric utilities	26.16	25.64	24.72	24.28	24.68	24.74	25.39
Coke plants	47.61	46.06	45.85	44.38	46.42	50.67	50.63
Other industrial plants	32.41	32.26	31.59	31.46	32.26	35.49	34.17
Average free alongside ship (f.a.s.):							
Exports	40.55	38.89	36.50	34.90	36.97	40.44	35.98
Steam coal	32.42	30.24	29.91	29.67	31.88	34.51	26.94
Metallurgical coal	45.45	44.58	41.91	38.99	41.63	45.41	44.55
Imports	34.32	32.18	30.77	30.10	34.00	35.51	31.45

Source: U.S. Energy Information Administration, *U.S. Coal Supply and Demand: 2002 Review*, annual. See also <<http://tonto.eia.doe.gov/FTPROOT/coal/coalpubs.htm>>.

No. 878. Coal and Coke—Summary: 1980 to 2003

[830 short tons represents 830,000,000 short tons. Includes coal consumed at mines. Recoverability varies between 40 and 90 percent for individual deposits; 50 percent or more of overall U.S. coal reserve base is believed to be recoverable]

Item	Unit	1980	1990	1995	1999	2000	2001	2002	2003
COAL									
Coal production, total ¹ . . .	Mil. sh. tons . . .	830	1,029	1,033	1,100	1,074	1,128	1,094	1,069
Value	Bil. dol.	20.45	22.39	19.45	19.42	18.02	19.60	19.48	(NA)
Anthracite production	Mil. sh. tons . . .	6.1	3.5	4.7	4.8	4.6	1.9	1.3	(NA)
Bituminous coal and lignite	Mil. sh. tons . . .	824	1,026	1,028	1,096	1,069	1,126	1,093	(NA)
Underground	Mil. sh. tons . . .	337	425	396	392	374	(NA)	357	(NA)
Surface	Mil. sh. tons . . .	487	605	637	709	700	(NA)	736	(NA)
Exports	Mil. sh. tons . . .	92	106	89	59	58.5	48.7	39.6	43.0
Imports	Mil. sh. tons . . .	1	3	9	9	12.5	19.8	16.9	25.0
Consumption ²	Mil. sh. tons . . .	703	896	941	1,045	1,081	1,060	1,065	(NA)
Electric power utilities	Mil. sh. tons . . .	569	774	829	894	859	(NA)	976	(NA)
Industrial	Mil. sh. tons . . .	126	115	106	94	94	(NA)	84	(NA)
Number of mines	Number	5,598	3,243	2,104	1,591	707	(NA)	(NA)	(NA)
Daily employment	1,000	225	131	90	79	72	77	75	(NA)
Production, by state:									
Alabama	Mil. sh. tons . . .	26	29	25	20	19	19	19	20
Illinois	Mil. sh. tons . . .	63	60	48	40	33	34	33	32
Indiana	Mil. sh. tons . . .	31	36	26	34	28	37	35	35
Kentucky	Mil. sh. tons . . .	150	173	154	140	131	134	124	113
Montana	Mil. sh. tons . . .	30	38	39	41	38	39	37	37
Ohio	Mil. sh. tons . . .	39	35	26	22	22	25	21	22
Pennsylvania	Mil. sh. tons . . .	93	71	62	76	75	74	68	64
Virginia	Mil. sh. tons . . .	41	47	34	32	33	(NA)	30	32
West Virginia	Mil. sh. tons . . .	122	169	163	158	158	(NA)	150	138
Wyoming	Mil. sh. tons . . .	95	184	264	337	339	(NA)	373	376
Other States	Mil. sh. tons . . .	140	187	192	200	197	(NA)	202	201
World production	Mil. sh. tons . . .	4,200	5,441	5,157	4,988	4,995	5,266	(NA)	(NA)
Percent U.S. of world	Percent	19.8	18.9	20.0	22.1	21.5	21.3	(NA)	(NA)
COKE									
Coke production ³	Mil. sh. tons . . .	46.13	27.62	23.75	20.02	20.81	18.95	16.78	17.17
Imports	Mil. sh. tons . . .	0.66	0.77	3.82	3.22	3.78	2.53	3.24	2.76
Exports	Mil. sh. tons . . .	2.07	0.57	1.36	0.90	1.15	1.35	0.79	0.72
Consumption	Mil. sh. tons . . .	41.28	27.82	25.85	22.42	23.24	20.20	19.60	19.44

NA Not available. ¹ Includes bituminous coal, subbituminous coal, lignite, and anthracite. ² Includes some categories not shown separately. ³ Includes beehive coke.

Source: U.S. Energy Information Administration, *Coal Industry*, annual; *Annual Energy Review*, *International Energy Annual*, and *Quarterly Coal Report*. See also <[ftp://ftp.eia.doe.gov/pub/pdf/coal.nuclear/05842000.pdf](http://ftp.eia.doe.gov/pub/pdf/coal.nuclear/05842000.pdf)> (issued June 2002).

No. 879. World Coal Production by Major Producing Country: 1980 to 2001

[In millions of short tons (4,188.6 represents 4,188,600,000)]

Country	1980	1990	1995	1996	1997	1998	1999	2000	2001
World, total	4,188.6	5,440.9	5,156.9	5,193.5	5,196.2	5,093.3	4,987.9	4,995.2	5,266.0
China	683.6	1,190.4	1,537.0	1,545.3	1,507.1	1,429.0	1,364.9	1,314.4	1,459.0
United States	829.7	1,029.1	1,033.0	1,063.9	1,089.9	1,117.5	1,100.4	1,073.6	1,121.3
India	125.9	233.4	297.8	314.9	326.1	322.2	326.8	342.7	338.6
Australia	116.1	225.8	266.6	272.4	292.1	316.8	320.8	338.2	356.9
South Africa	132.0	247.6	227.3	227.5	244.3	246.9	243.0	248.4	250.3
Russia	(X)	(X)	296.4	304.0	257.9	241.0	259.2	279.2	299.5
Germany ¹	532.2	513.7	274.2	265.0	251.7	233.0	226.0	225.3	225.7
Poland	253.5	237.1	220.2	193.1	221.5	196.2	187.6	178.3	178.9
Korea, North	39.7	99.2	106.9	105.7	104.7	99.5	100.5	105.7	105.3
Ukraine	(X)	(X)	94.6	83.5	84.8	85.1	90.9	90.2	90.1
Kazakhstan	(X)	(X)	91.9	84.7	80.1	76.9	64.4	79.7	88.5
Canada	40.4	75.4	82.6	83.5	86.8	82.9	79.9	76.2	77.7
Turkey	20.2	52.6	60.7	62.1	66.1	74.3	73.9	69.6	72.6
Indonesia	0.6	11.6	45.7	55.5	60.2	66.5	79.4	84.4	99.6
Czech Republic	(X)	(X)	81.9	84.0	81.0	74.4	65.2	71.8	72.9
Greece	25.6	57.2	63.6	65.9	64.9	67.1	68.4	70.4	74.5
Colombia	4.5	22.6	28.4	33.1	35.9	37.2	36.1	42.0	47.9
Serbia and Montenegro	(X)	(X)	44.1	42.4	44.8	48.6	36.7	37.9	39.5
United Kingdom	143.8	104.1	52.5	53.5	51.8	44.1	39.9	33.7	34.7
Romania	38.8	42.1	45.3	46.2	37.3	28.9	25.2	32.3	33.1
Bulgaria	39.6	39.0	33.9	33.7	32.8	34.1	31.2	32.7	31.5
Spain	40.9	39.6	31.3	30.8	29.2	28.7	26.8	25.9	25.0
Thailand	1.6	13.7	20.3	23.9	25.8	22.0	20.1	19.6	21.6
Hungary	28.3	19.7	16.1	16.7	17.2	17.1	16.8	16.2	16.0
Mexico	4.0	8.6	10.3	11.1	11.5	12.4	11.4	12.5	12.8

X Not applicable. ¹ For 1980 and 1990, represents East and West Germany combined.

Source: U.S. Energy Information Administration, *International Energy Annual*, 2001. See also (issued March 2003).

No. 880. Demonstrated Coal Reserves by Major Producing State: 2001 and 2002

[In millions of short tons. As of January 1. The demonstrated reserve base represents the sum of coal in both measured and indicated resource categories of reliability. Measured resources of coal are estimates that have a high degree of geologic assurance from sample analyses and measurements from closely spaced and geological well known sample sites. Indicated resources are estimates based partly from sample and analyses and measurements and partly from reasonable geologic projections. For more information on the classification of coal resources and related terminology, see report cited below.]

State	2001			2002		
	Method of mining			Method of mining		
	Total reserves	Under ground	Surface	Total reserves	Under ground	Surface
United States	501,059	338,525	162,534	497,708	336,928	160,780
Alabama	4,389	1,157	3,232	4,318	1,097	3,221
Alaska	6,118	5,423	695	6,115	5,423	692
Colorado	16,552	11,780	4,772	16,430	11,661	4,769
Illinois	104,773	88,188	16,586	104,648	88,077	16,570
Indiana	9,738	8,831	907	9,637	8,801	835
Iowa	2,189	1,732	457	2,189	1,732	457
Kentucky	31,053	17,797	13,257	30,614	17,484	13,130
Kentucky, Eastern	11,326	1,727	9,598	10,977	1,491	9,486
Kentucky, Western	19,728	16,069	3,658	19,637	15,993	3,644
Missouri	5,992	1,479	4,513	5,991	1,479	4,512
Montana	119,472	70,958	48,514	119,377	70,958	48,418
New Mexico	12,324	6,203	6,121	12,249	6,199	6,051
North Dakota	9,243	-	9,243	9,166	-	9,166
Ohio	23,495	17,679	5,816	23,419	17,631	5,788
Oklahoma	1,566	1,235	331	1,562	1,233	328
Pennsylvania	28,101	23,769	4,332	27,838	23,541	4,297
Anthracite	7,208	3,847	3,361	7,204	3,845	3,359
Bituminous	20,893	19,922	971	20,634	19,696	938
Texas	12,672	-	12,672	12,559	-	12,559
Utah	5,639	5,371	268	5,534	5,267	268
Virginia	1,960	1,332	628	1,850	1,247	603
Washington	1,368	1,332	36	1,356	1,332	23
West Virginia	34,244	30,097	4,147	33,713	29,722	3,991
Wyoming	66,219	42,501	23,718	65,291	42,501	22,790
East of the MS River	239,379	190,116	49,262	(NA)	(NA)	(NA)
West of the MS River	261,680	148,409	113,271	(NA)	(NA)	(NA)

- Represents or rounds to zero. NA Not available.

Source: U.S. Energy Information Administration, unpublished data from the Coal Reserves Database.

No. 881. Uranium Concentrate (U_3O_8) Industry—Summary: 1990 to 2002

[See also Table 920 in Section 19]

Item	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Exploration and development, surface drilling	Mil. ft.	1.7	1.8	1.1	1.1	0.7	1.3	3.0	4.9	4.6	2.5	1.0	0.7	(D)
Expenditures	Mil. dol.	17.1	17.8	14.5	11.3	3.7	6.0	10.1	30.4	21.7	9.0	6.7	4.8	0.4
Number of mines operated.	Number	39	15	17	12	12	12	13	14	15	14	10	7	6
Underground	Number	27	6	4	-	-	-	1	1	4	3	1	-	-
Openpit.	Number	2	2	1	-	-	-	-	-	-	-	-	-	-
In situ leaching	Number	7	6	4	5	5	5	6	7	6	6	4	3	3
Other sources	Number	3	1	8	7	7	7	6	6	5	5	5	4	3
Mine production	1,000 pounds . . .	5,876	5,182	986	2,050	2,526	3,528	4,705	4,710	4,782	4,548	3,123	2,647	2,405
Underground	1,000 pounds . . .	(D)	(D)	(D)	-	-	(D)	(D)	(D)	(D)	(D)	-	-	-
Openpit.	1,000 pounds . . .	1,881	2,528	(D)	-	-	-	-	-	-	-	-	-	-
In situ leaching	1,000 pounds . . .	(D)	(D)	(D)	2,448	3,372	4,379	4,084	3,721	3,830	2,995	(D)	(D)	(D)
Other sources	1,000 pounds . . .	3,995	2,654	986	2,050	78	156	326	626	1,062	718	128	(D)	(D)
Uranium concentrate production ¹	1,000 pounds . . .	8,886	7,952	5,645	3,063	3,352	6,043	6,321	5,643	4,705	4,611	3,958	2,639	2,344
Concentrate shipments from mills and plants	1,000 pounds . . .	12,957	8,437	6,853	3,374	6,319	5,500	5,982	5,817	4,863	5,527	3,187	2,203	3,810
Employment	Person-years	1,335	1,016	682	871	980	1,107	1,118	1,097	1,120	848	627	423	426

- Represents zero. D Data withheld to avoid disclosing figures for individual companies. ¹ U_3O_8 .

Source: U.S. Department of Energy, *Uranium Industry*, annual. See also <<http://www.eia.doe.gov/cneaf/nuclear/uia/uia.pdf>> (released May 2003) and <<http://www.eia.doe.gov/cneaf/nuclear/uia/contents.html>>. (released May 2003).